

Department of Natural Resources



FY 2017 Capital Outlay Five-Year Plan

Compiled by:
Finance and Operations Division
Budget and Central Support Services

Fiscal Year 2017 Capital Outlay Five-Year Plan

EXECUTIVE SUMMARY

Mission Statement

The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the state's natural and cultural resources for current and future generations.

Department Overview

The Department of Natural Resources was established in 1921 as the Department of Conservation for the purpose of managing and protecting the natural resources of the State of Michigan. Renamed the Department of Natural Resources (DNR) in 1968, the Department is responsible for stewardship of the state's natural resources and for the provision of public outdoor recreation opportunities. While operating as a stand-alone agency, the DNR works collaboratively with the Department of Environmental Quality (DEQ) and Michigan Department of Agriculture and Rural Development (MDARD) as a member of the Quality of Life group.

The DNR administers a variety of programs that are largely managed by the Department's core resource divisions – Fisheries, Forest Resources, Minerals Management, Law Enforcement, Parks & Recreation, and Wildlife. Information on the programs administered by these divisions and the infrastructure that supports the programs is provided in the Infrastructure Detail section. There are also administrative divisions (e.g. Finance & Operations, Marketing & Outreach, etc.) that provide vital services in support of the Department's program operations.

Well-maintained and functional facilities are needed to support programs such as state parks, state harbors and boating access sites, state forest campgrounds, state game areas, wildlife viewing areas, and fish hatcheries, as well as field offices and Customer Service Centers (offices). Nearly all the offices housing resource staff (nine of ten Customer Service Centers and fourteen of fifteen field offices) are state-owned facilities managed by the Department.

In addition to its operating infrastructure, the DNR manages extensive infrastructure related to its natural resource management, land management, and recreational responsibilities. This includes, but is not limited to, dams, bridges, trails, roads, harbors, boating access sites, shooting ranges, fish ladders, electrical systems, water systems, and sewer systems. Ongoing maintenance and repairs are needed to preserve the longevity of these assets and ensure the infrastructure remains operable, providing continued support for the programs and overall mission of the Department. Proactive repair and replacement of critical infrastructure that is rapidly aging and deteriorating

has become increasingly difficult due to the lack of available funding. With funding falling dramatically short of the amount needed to maintain, repair, and improve existing system infrastructure, a considerable backlog of necessary repairs and improvements has formed. As maintenance is deferred and needed repairs and improvements continue to go unaddressed due to the lack of available funding, the risk of infrastructure failure increases. As infrastructure failures occur, funding that is available must be directed toward emergency repairs, often at a much greater expense than preventative repair and replacement.

The DNR is continually searching for opportunities to secure additional financial support and leverage existing funding that is available for capital outlay needs. For instance, the Department's capital outlay requests frequently include Grants-In-Aid to maintain, build, and expand locally-owned recreational facilities related to boating. These projects further the mission of the Department without adding to the carrying costs of daily management or maintenance of infrastructure. The Department also submits grant applications to request funding through the Michigan Natural Resources Trust Fund and seeks to fully utilize available federal funding.

Where there is flexibility regarding the allocation of available funding, the DNR looks to established priorities for capital outlay planning. These priorities are established based on a predetermined strategy focusing on the following factors:

- Operational need
- Preventative maintenance
- Accessibility
- Recreational opportunities in or near urban areas
- Partnering/consolidation
- Energy-efficient facilities

This strategy for capital outlay planning interconnects with the overarching priorities established in the Department's scorecard:

- Protect natural and cultural resources
- Enable sustainable recreation use and enjoyment
- Enable strong natural resource-based regional economies
- Improve upon and forge new relationships and partnerships
- Promote effective business practices and good government

Specific performance metrics have been established with targets to define success and measure progress in achieving each of these priorities or desired outcomes. A copy of the Department's scorecard can be accessed via the following link:

http://www.michigan.gov/openmichigan/0,4648,7-266-60201_60939---,00.html.

Department Strategies for Prioritization

The DNR develops its capital outlay plans with a focus on the following priorities:

- **Operational Need:**

The critical nature of the Department's mission and responsibility to Michigan's citizens, taxpayers, and tourists mandates that the Department's facilities be sufficient to meet their service functions. Full utilization of the Department's varied resources is dependent upon sufficient and functional facilities.

- **Preventative Maintenance:**

The Department must preserve its existing capital investments so that it may continue to fulfill its mission and provide services to Michigan residents. Effective preventative maintenance practices minimize costs over the long term, prevent health and safety hazards, and allow for minimal interruptions of service.

- **Accessibility:**

The Department must strive to ensure that its facilities, programs, and projects are barrier-free and accessible to all users. The Department's goal is to provide accessible recreation opportunities to Michigan residents and visitors and increase opportunities for public access to the state's natural resources.

- **Recreational Opportunities in or Near Urban Areas:**

The Department promotes recreation user recruitment and retention through the development and maintenance of facilities in or near urban areas. Additionally, state trail connectivity initiatives help create walkable communities and facilitate restoration of degraded urban natural resources to provide quality outdoor recreation opportunities.

- **Partnering/Consolidation:**

Where possible, the Department shares facilities with other state agencies and universities to promote efficiencies and maximize the use of available funding. The Department works with local government agencies and other entities to develop and maintain recreational opportunities for Michigan's residents.

- **Energy-Efficient Facilities:**

The Department seeks to promote energy-efficient facilities and reduce facility energy consumption. Opportunities include installing energy-efficient lights, water heaters, heating and ventilation systems, and low-flow plumbing fixtures. Proper maintenance of roofs, installation of building insulation, and the reduction of exterior air infiltration lead to further energy efficiencies.

Department-Level Initiatives

In line with the DNR's strategic focus, the priorities outlined in the Capital Outlay Five-Year Plan for fiscal years 2017-2021 were identified on the basis of the following objectives:

1. Keep facilities safe and open to the public
 - Focus on the most critical needs (e.g. infrastructure that is most at-risk for failure) to ensure facilities are functional and able to remain open to the public
 - Perform preventative maintenance, as funding permits, to prevent health and safety hazards and preserve the Department's capital investments through proactive maintenance and repairs
2. Creatively leverage available funding, albeit limited
 - Take advantage of opportunities to secure federal funding for projects
 - Partner with local government agencies through the Grant-In-Aid program, maximizing project funding by supplementing available state funds with local match dollars
3. Increase opportunities for public access to the State's natural resources
 - Provide barrier-free access to facilities and recreational opportunities
 - Give special consideration to the location of new development as a means of creating new avenues for public access and expanding the existing user base
4. Exhibit good environmental stewardship, incorporating energy-efficient and "green" components into construction projects whenever feasible
5. Continue to seek sustainable funding sources for the Department's significant capital outlay needs

Programming Changes

In 2013, the Department undertook an initiative known as the "DNR Building Census Project" to collect information such as square footage, construction dates, staffing levels, utility usage, and network connectivity on DNR facilities across the state. A Facility Management System database was developed as a means of collecting and reporting on information gathered. Pictures, GIS coordinates, engineering and design plans, equipment manuals, and other related documents were added to the database.

In 2014 and 2015, the Department used data in the Facility Management System to develop a "Facility Strategy Plan" to evaluate preventative maintenance and capital improvement needs and to identify ways to improve service delivery through strategic investment. The priorities that emerged from this process were to address maintenance needs of DNR-managed facilities, which average 41 years in age, and the realignment of customer service staff and facilities to fill current voids.

Part of this strategic realignment is underway with the relocation of the Rose Lake Field Office to a newly purchased Lansing Customer Service Center located in Delhi Township. This location is in close proximity to Michigan State University, a major research and educational partner, as well as major transportation corridors of US-127, I-496 and I-96. This realignment provides closer access for customers and allows for consolidation of staff from other locations.

Another example of strategic realignment is underway at the Traverse City Field Office. The Department is looking to replace this facility with an existing property that would allow for the consolidation of several leases, provide better storage facilities for equipment, and be located on M-37, a major transportation corridor, allowing better visibility for and proximity to customers.

The Department is also working with other state agencies to identify opportunities to combine resources for office and storage space and to explore other models of providing customer service. In the central Upper Peninsula, discussions are underway with five other state agencies which, like the DNR, are party to various leases. The DNR's Newberry Field Office is within one half mile of 40 acres of public land. The intent is to evaluate a combined state office building which would be constructed on this land to accommodate staffing needs and customer service for the six agencies.

Existing facilities have been reviewed to determine if they should be retained, transferred, sold, or demolished based on condition. Three buildings have been demolished in the past 12 months. These actions eliminate utility costs and a current backlog of maintenance needs at these locations.

As the Department aligns facilities and customer service locations with current needs, the DNR will complete an assessment of all remaining infrastructure including beach houses, camper cabins, concessions, contact buildings, picnic shelters, fish cleaning stations, historic buildings, toilet and shower buildings, lighthouses, equestrian facilities, and other land improvements. The DNR's portfolio of facilities includes structures and locations that no longer meet the strategic needs of the Department and others with needed costly repairs that are of limited value. The strategic review and plan is designed to align the DNR's operational facility needs and resources.

The DNR looks to optimize utilization of current facilities through consolidation of staff and equipment where possible while still providing appropriate resource management and response. The DNR will strive to:

- Make facility decisions with a 25 to 50 year perspective based on broad operational needs across the department as appropriate
- Identify internal resources and cost savings before requesting funds for new facilities
- Expand the Customer Service Centers in alignment with the 10 identified economic prosperity regions
- Utilize savings resulting from updated or closed locations to maintain, upgrade, or build facilities needed for Department objectives

INFRASTRUCTURE DETAIL

Department Operating Infrastructure

General Background

The Facilities, Operations and Support Section (FOS) within the DNR Finance and Operations Division is committed to maintaining the Department's operating infrastructure, which includes 10 Customer Service Centers (CSCs) and 15 field offices. Refer to the table on page A-1 in the appendix for a list of the various CSCs and field offices. Historically, the CSCs maintain standard hours in which they're open to the public and have on-site staff representation from all DNR divisions. Field offices, while also open to the public, are staffed with division personnel based upon their geographic location (e.g. primarily supporting state forests in northern Michigan and state game areas in southern Michigan).

The DNR's 25 administrative offices are distributed throughout the Upper and Lower Peninsulas. These offices provide administrative support to resource staff and customer service to thousands of telephone and walk-in customers annually. The primary objective of FOS is to provide the very best customer service to the general population and to DNR field resource staff. This requires facilities that are accessible, operational, energy-efficient, and safe. The DNR strategically considers the location of CSCs and field offices to ensure close proximity to population centers, recreation destinations, and transportation travel corridors with the intention of providing services and information to as many customers as possible.

Inventory/Assessment

Each year the CSC and field office infrastructure is inventoried and assessed for current condition, critical needs, and preventative maintenance requirements. The average age of the CSCs and field offices is 44 years. Two of the offices, Traverse City and Newberry, are leased. The remaining 23 are publicly owned facilities. Because just one new office has been built since 1990, Detroit in 2014, the state-owned offices are in need of replacement work, accessibility improvements, preventative maintenance, and repairs. Many of the offices need new carpeting, paint, furniture, roofing improvements, and energy-efficiency improvements (e.g. new windows, high-efficiency heating and cooling systems, high-efficiency lighting and plumbing systems, etc.). Finally, upgrades to support technology, such as improving connectivity to the state network and replacing phone systems, are also needed across the state.

The operating facility assessments address maintenance, health and safety, accessibility, and energy efficiency. The facility assessments were completed by four DNR employees with over 70 combined years of facility management experience, some with professional skilled trade experience. As the primary facility managers, they coordinate with licensed contractors to identify the scope of work for improvements and the associated replacement costs.

Recent Accomplishments

The Department employs a comprehensive approach to evaluate facilities across the state to strategically realign, reposition, and consolidate to better serve staff and customers. Two top priority locations were the Rose Lake and Traverse City Field Offices. Rose Lake was built in 1960, faces hundreds of thousands of dollars in deferred maintenance cost, and is removed from a population center and transportation travel corridor. The Traverse City site lacks needed storage capacity and is a leased facility. The Department has utilized the commercial real estate markets in both locations to find existing buildings that meet the needs of regional staff and allow for consolidation from other locations. It is anticipated that real estate transactions for both of these facilities will be completed in the first quarter of fiscal year 2016. Because additional Divisional staff will be joining both locations, they will be rebranded and marketed as “Customer Service Centers”.

In light of limited budgets intended primarily for utility bills, service contracts, and emergency repairs, many of the major capital outlay priority projects for the Department’s operating infrastructure remain unfunded. However, in fiscal year 2015, the Department initiated the replacement of the Gaylord CSC roof with support from enterprise-wide special maintenance funding appropriated to the Department of Technology, Management and Budget.

Other projects completed or commenced include a new equipment and material storage room at the Detroit CSC; new conference room furniture and projector at the Plainwell CSC; crack sealing and seal coating the parking lots at the Gaylord CSC and Grayling Field Office; new ADA-compliant restrooms at the Escanaba Field Office; improvements to the Roscommon CSC heating, ventilation, and air conditioning (HVAC) system; a new HVAC unit at the Crystal Falls Field Office; a new water heater at the Marquette CSC; a new steel roof for the Grayling Field Office; and plumbing and water fixture upgrades at the Baldwin & Gladwin Field Offices.

Priorities

As part of the comprehensive strategy for evaluating facilities across the state, additional locations have been identified as priorities in fiscal year 2016, including the Newberry Customer Service Center as well as the Mio and Sault Ste. Marie Field Offices. Within one-half mile to the north of the Newberry facility, the Department manages 40 acres of public land that contains a small complex of various storage and workshop buildings to the rear of the property. The Department has commenced preliminary conversations with five other state agencies, which are also in the Newberry area and operate under separate leases, with the intention of evaluating a combined state office building constructed on DNR-managed public land to provide for staffing needs and customer service.

The Mio Field Office is a 6,116 square foot building that was built in 1962. A lease agreement is in place to accommodate the Oscoda County Veteran’s Affairs Agency and there is a separate lease request pending for the Northeast Michigan Community

Service Agency Head Start Program. Since 2000, there have been ongoing conversations with Oscoda County regarding its interest in acquiring the Mio Field Office from the Department. The intent in fiscal year 2016 is to renew those conversations to seek a transfer to the County in order to reduce the physical assets in this area as well as remove operational and maintenance costs.

In Sault Ste. Marie, a local private developer has approached the Department with an interest in acquiring the field office, which comprises 3,122 square feet and was built in 1940. In addition to the age of the structure, deferred maintenance needs, and limited accessibility and storage space, the location is in a growing commercial district and has limitations with respect to parking, vehicular circulation, and flexibility for mobilization of heavy equipment when responding to fire emergencies. The intent is to continue negotiations with the developer to sell this field office and secure an existing building or enter into a build to suit contract for a new structure.

Priority projects for the Department's CSCs and field offices have been identified for fiscal year 2016 and beyond. Economic conditions and available funding will dictate the extent to which the Department is able to complete these projects. Maintenance and improvements are needed across all 23 of the DNR-managed state-owned administrative offices. The types of needs identified include: new carpeting; new furniture; exterior and interior painting; energy-efficient HVAC and lighting upgrades; new storage garages; office renovations and additions; roof replacements; parking lot paving and maintenance; and demolition of vacated and consolidated buildings that are no longer being utilized. Maintenance and improvements are critical to provide sufficient, functional facilities; minimize costs over the long term; prevent health and safety hazards; and to allow for minimal disruption of service.

Programming Changes

The DNR continues to assess the needs of its offices as well as the location and number of offices around the state. The Department faces a variety of challenges, including maintenance issues and the inadequacy of facilities to store equipment or accommodate staff. An ongoing objective of the Department is to reduce lease obligations and transition to state-owned facilities that are strategically located and managed by the Department.

Land Management

General Background

The DNR manages approximately 4.6 million acres of public land throughout the state. These lands are inventoried in the Land Ownership Tracking System (LOTS), which includes the Minerals Management System and other related subsystems. This system maintains the ownership history of public lands managed by the Department and is the largest land transaction management system in the state. LOTS serves as the basis for more advanced systems, such as resource mapping, and is used to process real estate transactions from the initial stages through posting.

The Department continues to sell parcels that were identified as “surplus” in a land review completed several years ago. In an effort to make effective use of lands that are determined to be surplus, the Department is working to convey these parcels in a manner that: 1) provides for continued protection of important natural and cultural resource or recreation values; 2) provides a means to purchase or exchange for more desirable replacement lands; or 3) supports local economic activities.

The Department’s priorities for acquisition include private land in-holdings to consolidate existing public land ownership, lands to protect key wetlands, wintering deer complexes, lands to protect rare species habitats, and lands to provide additional public access. Consolidation of lands and disposing of non-contiguous lands allows the Department to manage these resources in a more effective and efficient manner.

The Department purchases and maintains equipment in order to maintain lands and infrastructure. Replacement of old and unsafe equipment, such as bulldozers, loaders, tractors, and dump trucks, is a priority. The use of DNR staff and equipment is cost-effective for maintenance. For large projects that involve bridge replacements or repairs, contractors and oversight are needed.

Inventory/Assessment

All DNR-managed public lands are recorded in the Department’s land database. Assessments of infrastructure condition are ongoing. These assessments are carried out by the appropriate managing divisions (Forest Resources, Parks & Recreation, Fisheries, or Wildlife).

Priorities

A June 2012 Real Estate Performance Audit issued by the Office of Auditor General (OAG) cited the DNR for failure to work collaboratively with the Department of Corrections (DOC) to demolish vacated correctional facilities on public lands managed by the DNR, thereby restoring the recreational value of the sites. The DOC closed facilities situated on DNR-managed public land without providing for adequate decommissioning, demolition, and site restoration.

Abandoned prison infrastructure at Camp Brighton, Camp Waterloo, and Camp Lehman has been removed while Camp Cusino and Camp Baraga are in the process of being removed. The Camp White Lake project is in the contractor bid phase. Progress was delayed while considering an option to re-purpose buildings by the local unit of government. Legislative approval has been received for all abandoned prison demolition.

Demolition and site restoration work will offer a variety of benefits, including removing public health and safety hazards, reducing liability, and returning land to productivity and public use. Restoration will provide the public with additional outdoor recreational opportunities and improved hunting and fishing experiences. These efforts will also restore revenue-generating natural resources that contribute to the state’s economy.

Programming Changes

Legislation enacted in 2012 placed a cap on the number of acres of public land the DNR can manage. In accordance with PA 240 of 2012, the Department had been prohibited from managing more than 4,626,000 acres statewide. This restriction was in place until May 1, 2015, at which time a new cap was instituted for DNR-managed lands north of the Mason-Arenac line. Beginning May 1, 2015, PA 240 of 2012 now prohibits the Department from managing more than 3,910,000 acres north of the Mason-Arenac line. However, the statute includes intent language indicating that this restriction could be lifted if the Department submits a strategic plan for land acquisition and disposition that is acceptable to the Legislature.

A strategic plan to guide the acquisition and disposition of public lands managed by the Department is required by PA 240 of 2012. The DNR Managed Public Land Strategy and appendices can be found on the DNR website and can be accessed via the following link:

http://www.michigan.gov/dnr/0,4570,7-153-31154_64433---,00.html.

More detailed information concerning the number of acres the Department manages is available on the DNR website and can be accessed via the following link:

www.michigan.gov/dnr/0,4570,7-153-31154-285534--,00.html

In January 2014, House Bill (HB) 5210 was introduced by then Representative Wayne Schmidt and referred to the House Committee on Natural Resources. HB 5210 called for approval of the DNR Managed Public Land Strategy and removal of the land cap prescribed within PA 240 of 2012. This bill was not passed.

In January 2015, Senate Bill (SB) 39 was introduced by Senator Tom Casperson and referred to the Senate Committee on Natural Resources. SB 39 also addresses the land cap, the DNR Managed Public Land Strategy, and other aspects of public land management by the DNR. The bill remains in committee. A summary of HB 5210 can be accessed via the following link:

[http://www.legislature.mi.gov/\(S\(12f3doacniuahzjpeqtr4iha\)\)/mileg.aspx?page=getObject&objectName=2015-SB-0039](http://www.legislature.mi.gov/(S(12f3doacniuahzjpeqtr4iha))/mileg.aspx?page=getObject&objectName=2015-SB-0039)

Fisheries Infrastructure, Facilities, and Equipment

General Background

Hatcheries

These facilities include six state fish hatcheries (Harrietta, Marquette, Oden, Platte River, Thompson, and Wolf Lake), one cooperative Atlantic salmon hatchery (Lake Superior State University), one cooperative lake sturgeon hatchery (Black River Fish

Hatchery), two portable lake sturgeon hatchery trailers, five permanent salmon harvest weirs, three of which serve as egg take stations, and more than thirty extensive coolwater rearing ponds. These facilities currently have an estimated capital value of approximately \$120 million. The Department's hatcheries typically produce approximately 10 million trout and salmon and up to 30 million walleye, muskies, and sturgeon annually. At that level of output, approximately 300 to 400 tons of fish are produced each year for stocking in Michigan's public fishing waters. Information concerning the Department's six state fish hatcheries is provided below:

- ***Harrietta State Fish Hatchery, Harrietta, MI:*** The hatchery was first opened in 1901 and is the oldest continuously operating state hatchery. It is a major rearing facility for rainbow trout (mostly for inland waters) and brown trout (both inland and Great Lakes waters).
- ***Marquette State Fish Hatchery, Marquette, MI:*** The hatchery began operating in 1920 and was substantially renovated in 1994. It is the primary captive broodstock and rearing facility for brook and lake trout that are used in both inland and Great Lakes waters. The hatchery also rears splake (a brook trout/lake trout hybrid) for both Great Lakes and inland waters.
- ***Oden State Fish Hatchery, Oden, MI:*** Opened in 1921, the facility was completely rebuilt in 2002. This facility is the brown and rainbow trout captive broodstock station and is a major rearing facility for those two species.
- ***Platte River State Fish Hatchery, Honor, MI:*** Opened in 1928, the hatchery raises coho, Chinook, and Atlantic salmon, and incubates walleye. The facility underwent a partial renovation that was completed in 2004. Platte River State Fish Hatchery is the sole egg take station for coho salmon in Michigan.
- ***Thompson State Fish Hatchery, Thompson, MI:*** The hatchery was opened in 1920 and was completely renovated in 1978. The facility is capable of producing a wide range of fish species for both inland and Great Lakes waters because of its unique combination of cold and warm groundwater supplies. Current production includes steelhead, Chinook salmon, and walleye.
- ***Wolf Lake State Fish Hatchery, Mattawan, MI:*** Established in 1927, the hatchery was completely renovated in 1983. This facility produces a wide range of fish species for both inland and Great Lakes waters. Coldwater species produced at Wolf Lake State Fish Hatchery for Great Lakes waters include steelhead trout and Chinook salmon. Coolwater species that are currently produced in limited quantities at this facility include walleye and muskellunge.

To complete the fish production mission, Fisheries Division maintains and operates 17 specialized fish transportation trucks that move fish to stocking sites from fish hatcheries; a cooperative Aquatic Animal Health Unit with Michigan State University to diagnose and manage pathogens in both wild and hatchery populations; a cooperative

fish marking program that annually marks between 3 million to 8 million fish with physical or chemical marks to allow for program evaluation; and a fish quality program to ensure the fish from the state's hatchery system are able to perform as desired by Fisheries managers. To ensure the fish production facilities are capable of producing the required fish, each hatchery has trained maintenance staff supported by system-wide fish transportation and electronics specialists.

Research Stations

Fisheries Division maintains seven research stations and four Great Lakes vessels for the primary purpose of providing scientific information on which to base aquatic resource management decisions. Activities include monitoring and assessing Great Lakes fisheries, inland fisheries, and other aquatic resources. A wide range of specific fisheries issues are also investigated.

There are four Great Lakes stations:

- Alpena (opened 1969; current location since 1996)
- Charlevoix (opened 1968)
- Lake St. Clair (opened 1968)
- Marquette (opened 1952)

These research stations are used to investigate, monitor, and assess commercially-important fish species; conduct and evaluate recreational creel surveys; coordinate tagging programs; conduct studies of native and introduced salmonids; sample for invasive species and fish pathogens; and evaluate near-shore fish populations. The stations conduct research and stock assessment on the fish populations of each of the Great Lakes, including connecting waters such as the St. Clair/Detroit River System and the St. Mary's River.

The three remaining research stations are inland focused facilities and include: Hunt Creek Fisheries Research Station; the Institute for Fisheries Research (IFR); and Saline Fisheries Research Station. Hunt Creek Fisheries Research Station is located in Montmorency County and opened in 1939. The research area encompasses 3,000 acres and includes several miles of Hunt Creek main stem, seven tributary streams, and four lakes, all within a one mile radius of the office. This station has a long legacy of providing a foundation for coldwater fisheries management nationally and is currently unstaffed but will remain open under a cooperative agreement with Lake Superior State University that will continue the option for collaborative investigations with other entities. The IFR is a cooperative unit of the DNR and the University of Michigan. Established in 1930 and located in Ann Arbor, the staff at this station is focused on providing managers with landscape analytical tools to address specific management challenges (e.g. groundwater withdrawal, wind power development in the Great Lakes, introduction of invasive species, etc.). The IFR is also responsible for the development of recreational angler survey tools and oversight of the lake portion of the statewide inland status and trends program. The Saline Fisheries Research Station, located just south of Ann Arbor, has a unique set of identical experimental ponds that facilitate specialized research studies and will be used to conduct invasive species research in the near-term.

Vessels

The Great Lakes are ecologically significant on a worldwide scale, as they contain 20 percent of the world's fresh water. Michigan operates the largest state agency vessel fleet in the Great Lakes, and justifiably so as Michigan is jurisdictionally responsible for fisheries management in 43 percent of the waters of the Great Lakes. Fisheries Division's vessel program is used for the purposes of investigating, monitoring, and evaluating the status of the aquatic habitat and fisheries resources of the Michigan waters of the Great Lakes and connecting waters. The Department manages four vessels, each measuring over forty feet in length (one for each of the Great Lakes) and numerous smaller vessels. The large research vessels include:

- Research vessel (R/V) *Lake Char* (built 2008)
- Survey vessel (S/V) *Steelhead* (built 1967)
- R/V *Channel Cat* (built 1968)
- R/V *Chinook* (built 1947 and retired in 2015, will be replaced by the R/V *Tanner* in 2016)

Fish Ladders and Fisheries Operational Facilities

Fisheries Division has ten major fish ladders along with a number of smaller fish ladders, as well as several warehouses, shops, garages, and storage facilities that are instrumental to the management of the fisheries in the State of Michigan.

Inventory

An inventory is completed annually, the last being completed in July 2015.

Assessment

The Department of Natural Resources has developed a Facility Management Database for collecting and storing facility assessment and maintenance data. This database will allow the DNR to quickly identify facilities with structural and maintenance needs. Capital outlay needs for hatcheries are evaluated and updated on an annual basis. Research vessel maintenance schedules are also available.

Recent Accomplishments

Large-scale capital improvement funding has enabled the replacement of the RV *Chinook* with the RV *Tanner* in 2016. Other needed capital improvements lack funding at this time.

Priorities

Top priorities for fiscal years 2015 through 2019 include the following:

- Increase the rearing capacity for walleye, muskellunge, and northern pike by constructing coolwater production facilities at Thompson and Wolf Lake State Fish Hatcheries (DNR Strategy: Operational Need)

Details

Demand for coolwater fish (walleye, muskellunge, and northern pike) far outpaces current production capacity and is perennially unmet. None of the state's six hatcheries were designed to rear coolwater species. Thompson and Wolf Lake have been retrofitted to allow for some level of coolwater production, but the level of production is insufficient to meet demand, even when the facilities are operating at full capacity. A lack of separation between coolwater and coldwater fish production also increases the risk of disease transfer and the potential for interruptions in production due to fish health concerns.

The construction of two fully-outfitted coolwater fish production facilities at Thompson and Wolf Lake State Fish Hatcheries and the addition of new rearing ponds at both locations would significantly increase production capacity. It is estimated that these actions would result in an increase of 2.8 million walleye spring fingerlings (a 60 percent increase over current production), as well as the ability to produce millions of additional walleye fry. Significant increases in the production of other coolwater species would also be expected (e.g. tripling muskellunge production and allowing for the production of northern pike).

- Increase the rearing capacity for steelhead trout by completing critical upgrades at Thompson and Wolf Lake State Fish Hatcheries and addressing large-scale maintenance needs at the Little Manistee River Weir (DNR Strategy: Preventative Maintenance, Operational Need, and Energy-Efficient Facilities)

Details

Improvements are needed at Thompson and Wolf Lake State Fish Hatcheries to upgrade critical aquatic life support systems (e.g. replacing failing automated fish feeders, upgrading water supplies, improving water heating capabilities). This is in addition to other large-scale maintenance needs connected with the Little Manistee River Weir (e.g. replacing the backup generator, replacing concrete holding ponds, renovating the spawn building). It is estimated that these actions would collectively sustain and increase steelhead production by more than 10 percent, bringing production more in line with demand. The Little Manistee River Weir is the sole egg source for steelhead production in Michigan and has been operating since 1967. Very few facility improvements and upgrades have been completed since it was first put into operation. Without significant modernization, there is a high likelihood that valuable adult steelhead will be lost.

- Maintain facilities to increase the efficiency, safety, and longevity of infrastructure and equipment (DNR Strategies: Preventative Maintenance, Operational Need, and Energy-Efficient Facilities)

Details

The infrastructure maintained by Fisheries Division has a current capital value exceeding \$165 million, including \$120 million in hatchery infrastructure and \$30 million in fishway infrastructure. To properly maintain this level of infrastructure

and meet present fisheries management requirements necessitates a minimum one to two percent reinvestment each year in maintenance. Current funding allocations for maintenance of facilities within Fisheries Division are well below that amount, and the division has been unable to keep up with the rate of necessary improvements or repairs. Additional funding is needed to begin to address the required upkeep for health and safety and maintain the investment in facilities and equipment.

In addition, improvements are needed to reduce energy usage and make state fish hatcheries a leader in the use of green technology. The unit cost of electricity and fossil fuels has also been on an upward climb and is showing no sign of reversing or leveling off. Considering that 5 of the 6 DNR-operated hatcheries were built at least 20 years ago, there have been significant advancements in the energy efficiency of electric motors and motor control technology since that time. Similar advancements have occurred in the water and workspace heating industry. The replacement of inefficient boilers, conversion to natural gas from cost-volatile propane, and replacement of low-efficiency doors and windows would help stabilize heating bills.

- Construct and/or renovate Fisheries field buildings in 6 locations (DNR Strategies: Operational Need, Preventative Maintenance, and Energy-Efficient Facilities)

Details

Fisheries Division needs to replace and/or renovate 6 field buildings and support facilities that are over 50 years old and in deficient condition: Harrietta field building, Lake St. Clair Fisheries Research Station, Charlevoix Fisheries Research Station, Alpena Fisheries Research Station, and the fisheries facilities at the Plainwell and Bay City Customer Service Centers.

Dams and Reservoirs

General Background

Governor Snyder stressed the importance of removing problem dams in his Special Message on Infrastructure (delivered in October of 2011). There are approximately 2,500 dams around the state that are cataloged in a dam safety database managed by the Hydrologic Studies and Dam Safety Unit of the Michigan Department of Environmental Quality. These dams were built for a range of purposes including power generation, milling, recreation, and water storage. The American Society of Civil Engineers gave Michigan a “D” in its 2009 Dam Infrastructure report card, stating, “Over 90 percent of Michigan’s dams will reach or exceed their design life by 2020.”

Over 70 percent of the state’s dams are privately owned, and a number have significant issues with title ownership or have completely absent or unknown owners. Dams require continuous, often expensive maintenance that many owners are either unable or

reluctant to provide. The cost of dam repairs and removals often exceeds six figures, and most owners cannot afford either repairs or removal. Removing a problem dam rather than repairing one is often economically advantageous because it sometimes provides a greater return on investment over time due to the elimination of perpetual maintenance costs. Representatives of several communities have approached the Department seeking financial and technical assistance to remove dams rather than repair and maintain these facilities.

Dam removal has many economic and environmental advantages. Dams obstruct recreational use of rivers and impede efforts to create fully navigable water trails throughout the state. Dams also block the movement of fish and other aquatic organisms and disrupt natural nutrient flow, causing changes in stream configuration and aquatic species composition. This leads to increased fish management costs and a greater reliance on the stocking of DNR-produced fish to compensate for the loss of stream habitat and connectivity. Impounded water behind dams is less conducive to aquatic organisms because of poor water quality, abnormally high or low water temperatures, and accumulated sediment. Removal of problem dams improves the habitat of aquatic species in streams and rivers, which should result in better fishing and hunting opportunities. Removing dams that are in poor condition also eliminates the risk to public safety and downstream property posed by uncontrolled catastrophic dam failure.

It is almost always far less expensive in the long-term to have a dam removed than to deal with perpetual maintenance of a structure that no longer serves a societal or economic function. It is often the case that the cost to repair a dam properly is nearly the same as removal, and removal is a permanent solution to the problems with a structure. The return on investment associated with dam removal can exceed 20:1 when taking into account perpetual maintenance costs over the expected life the dam. This return on investment is greater yet when the benefits to fish habitat and aquatic recreation are considered. However, there are dams that continue to provide economic and societal benefits, where an investment in maintenance and repairs is needed (and warranted) to extend the longevity of the structures and reduce the risk to public safety.

Inventory

The Michigan Department of Environmental Quality, Hydrologic Studies and Dam Safety Unit maintains an inventory of dams located in the State of Michigan.

Assessment

The Department of Environmental Quality, Hydrologic Studies and Dam Safety Unit performs ongoing assessments on the condition of dams regulated by Part 315, Dam Safety of the Natural Resources and Environmental Protection Act, including the State-owned dams managed by the DNR.

Priorities

The DNR oversees 251 state-owned dams. Six are rated as high hazard potential, 15 as significant hazard potential, and the remaining as low hazard potential. These dams

exist to support fish rearing operations, wildlife habitat, and recreational camping, fishing, and hunting opportunities. Securing stable funding for the removal or maintenance of problem dams and assisting public and private entities in similar efforts continues to be a priority of the Department. Some of the potential consequences of failing to address the state's most vulnerable dams in need of investment include:

- More dam failures, with high costs due to personal safety issues, property damage, resource impacts, and environmental clean-up related to the failures
- Increased costs to stabilize structurally deficient dams
- Decreased property values in areas impacted by dam failures
- Job losses from reduced tourism in areas where significant resource damage occurs

State Forest System

General Background

At 4 million acres, Michigan has one of the largest dedicated state forest systems in the nation. Through the Forest Resources Division (FRD), the DNR manages these forests for timber production, wildlife habitat, and recreation. FRD recently completed a strategic plan, which is intended to guide management activities over the next three to five years. A copy of the strategic plan is available on the DNR website and can be accessed via the following link:

http://www.midnr.com/Publications/pdfs/ForestsLandWater/StrategicPlan/FRD_Strategic_Plan_2014_2018.pdf

The State Forest Plan estimates over 61,000 acres per year will be prepared for timber sale over the next nine years. Approximately 900,000 cords are harvested per year, generating over \$40 million of revenue annually to the State of Michigan. State timber, and access to the timber (both state and private), is important to the state's economy. Michigan's state forests provide a consistent supply of wood to help support and maintain a diverse forest products industry. The forest products industry contributes over \$17.8 billion annually to Michigan's economy, and the goal is to increase the annual contribution to \$20 billion by the year 2018. State forests provide more than 20 percent of the raw material for these industries.

Timber harvest also produces important wildlife habitat. Wildlife species benefit the state's economy by providing recreational opportunities which support wildlife habitat management enhancement through license fees. Hunters and other outdoor enthusiasts have a significant impact on local economies. Access to natural resources, including wood products and wildlife species, directly supports quality of life and Michigan's economy.

The DNR is also responsible for fire protection and suppression on nearly 20 million acres of public and private land. Access for motorized firefighting equipment is

important for the protection of life, property, and natural resources. FRD takes the lead in conducting prescribed burns on DNR-managed lands and last year completed over 100 burns on 10,000 acres. These burns benefited wildlife habitat, assisted in the control of invasive species, and reduced woody material in preparation for planting trees.

Management of the state forest system includes responsibility for significant infrastructure, such as forest roads, bridges, staff offices, garages, and storage facilities. Due to limited funding, much of the infrastructure is in dire need of some type of maintenance, repair, or enhancement.

Inventory

A DNR-wide initiative has been completed to collect in-depth information on buildings that house staff and equipment. The collection of this data allows the DNR to make more informed decisions for staffing and facility maintenance.

Forest roads are mapped on an annual basis as the forest compartment inventory is completed. One-tenth of the land base is inventoried each year by foresters. There are approximately 15,000 miles of forest roads under FRD jurisdiction. The FRD strategic plan identified the need for a better inventory of roads in a more timely fashion. A classification system and road inventory will be completed by the end of 2017. Once the forest road inventory is completed, an accurate assessment of the roads and their infrastructure can be made.

An inventory of bridges and culverts is also incomplete, in part because the forest road inventory is incomplete. However, the DNR is working with the Michigan Department of Transportation (MDOT) to complete an inventory of bridges. FRD is responsible for over 200 bridges, many of which are located on recreational trails managed by DNR Parks & Recreation Division (PRD). Approximately 21 percent of these bridges have been inventoried, with the condition documented by consulting engineers. The remaining bridges are being inspected, inventoried, and assessed on an ongoing basis in cooperation with MDOT and its engineers. Three of the DNR bridges inventoried and assessed to date have had critical findings. Two of the bridges were closed, and load limits had to be instituted on the third bridge. The local road commission provided a portable bridge to replace the reduced-load bridge so that access could be restored. The other two bridges remain closed. One is expected to be replaced in 2017, and the other bridge and the land it is situated on will be sold.

Assessment

The DNR has many forestry-related buildings that have deteriorated and need major repairs, such as replacements of heating systems and roofs. Annually, critical needs are identified and repairs made to ensure employee safety and to limit further structural decline. Deferral of routine maintenance due to limited funding can result in increased costs of repairs over time.

Responsibility for maintenance of roads and bridges also remains a key issue. The thousands of miles of forest roads are used not only to provide access for timber harvest, but also for mining, fire suppression, water access, recreational uses, emergency services, and local traffic. When issues are found with roads and bridges, particularly environmental issues such as sedimentation or run-off, those issues are reported and placed in a Resource Damage Report (RDR) database. There are currently over \$5 million in repairs in the RDR database. These repairs not only include road and bridge work, but trail projects as well.

The State Building Authority funded construction of a new facility to house the Forest Fire Experiment Station (FFES) in Roscommon. Construction of the new facility is complete. The former FFES building needs to be demolished. Testing and sampling for asbestos containing materials was done and there are areas that will require abatement before demolition can occur. A source of funding has yet to be identified for the abatement and demolition.

A campus of several abandoned structures that were located on state forest lands and previously used by the Department of Health & Human Services under a special use permit were demolished, thereby restoring the land for wildlife habitat, recreational use and timber production.

Priorities

FRD is responsible for several buildings, garages and storage facilities across the state. The priority is to evaluate the location, the use, occupancy, and condition of these buildings. Where possible, FRD seeks to consolidate space with other DNR staff and state agencies. Major repairs, renovations, and the construction of field offices throughout the state are priorities, as well as ongoing repair of roads and bridges. Safety of the public and DNR staff is the top priority. Providing a safe working environment is important in order to support the Department's mission. Having adequate structures in place protects employees and lengthens the lifespan of equipment.

Although state forest roads and bridges are in need of routine maintenance, due to limited funding the priority has been to address public safety issues and situations where major environmental damage is occurring. Examples include a road washing out or a bridge becoming inadequate for the intended transportation needs. Providing right sized structures and adequately maintaining roads helps limit the amount of sediment entering waterways which is important for fisheries habitat. It also provides access for logging and mining operations, especially where bridges are needed. Ongoing maintenance and repair of state forest roads and bridges is also important for meeting forest certification standards. Forest certification strengthens Michigan's forest products sector and is essential for primary wood producers in Michigan to have continued access to national and international markets.

Maintaining the transportation and infrastructure systems in the state forests provides improved and easier access for fire fighters, hunters, anglers, campers, and trail users.

Conservation of the resources provides habitat for various species. Easier access and ample wildlife populations encourage increased participation in hunting, fishing, and camping activities. Improved access to revenue-generating natural resources also supports natural resource management and extraction activities (e.g. harvest of timber, extraction of oil and gas, etc.), which provide a critical boost to the state's economy.

The purchase and use of temporary bridges and crane mats (which aids access across wet areas) has proved invaluable for accessing forests for timber harvesting, reforestation, wildlife habitat management, and environmental protection. They also provide a temporary solution for access until a permanent structure can be built for roads that have had longtime access to public lands. FRD is seeking to expand the pool of temporary bridges and mats for use in extracting timber from private lands. Increasing timber supply from private lands supports the forest products industry, an important segment of Michigan's economy. Forest management on private lands also meets the goals of the landowners for wildlife habitat maintenance and enhancements.

A significant issue impacting capital outlay for state-owned forests is the limited availability of funding. The Forest Development Fund, which is comprised of timber harvest revenues, is the primary source of funding for most state forest activities. Forest Development Fund revenue tends to fluctuate due to the volatility of the timber market. Over the last three fiscal years, revenues have increased significantly and are expected to remain steady. The increased revenue provides an opportunity to strategically invest in capital outlay projects.

Minerals Management

General Background

The DNR manages over 6 million acres of mineral estate through its Minerals Management program. The Office of Minerals Management (OMM) supports the state's natural resource based economy by overseeing the leasing and lease compliance for oil, gas, and mineral resources, as well as for underground natural gas storage rights. As of the close of fiscal year 2014, OMM oversees the administration of approximately 1.3 million acres under 13,000 active leases.

Revenue received from programs administered by OMM is distributed to various funds based on how the parcels were acquired. The State Park Endowment Fund is the largest beneficiary of these revenues receiving approximately 90 percent. Oil, gas, and mineral royalty revenue is also distributed into the Game and Fish Trust Fund, and an amount less than one percent is distributed to the General Fund for the leasing of natural gas storage rights.

Metallic Mining

In fiscal year 2015, the first active metallic mining production on state-owned lands began. In addition, there are two producing iron mines and one proposed copper mine on private lands.

Production at the metallic mine provided nearly \$5 million in royalty revenues in fiscal year 2015. Copper and nickel are the primary products produced. However, there are indications that other products such as palladium may be produced over the estimated ten year life of the mine. The royalties will vary depending on the type of product, amount produced, and the value of the product at the time of sale.

Additional companies hold state leases for metallic mines or are in the process of acquiring leases. All activity for these sites is in the exploratory or pre-mining stage.

Non-Metallic Mining

There are multiple active non-metallic mining operations on or beneath state-managed public lands. These mining operations include the extraction of sand, gravel, limestone, dolomite, and salt.

In 2012, Graymont Inc. filed an application with the state for the exchange and purchase of nearly 10,000 acres of land in Michigan's Upper Peninsula. Graymont has determined that a high calcium content limestone exists beneath the surface of this land. Limestone of this quality has multiple uses, such as being an important component in the manufacturing of concrete. In 2015, the DNR negotiated the completion of this transaction.

Given Michigan's vast mineral resources, other projects like the Graymont transaction are likely. A general understanding of the mineral potential of public lands managed by the DNR is needed. The development of maps and gathering of information pertaining to the land will be completed by staff, outside consultants, and geology student interns.

Abandoned Mines

General Background

In addition to the leasing of oil, gas, mineral, and natural gas storage rights, the DNR oversees a number of abandoned mine shafts on DNR-managed public land. Abandoned mine shafts exist primarily in the western Upper Peninsula on both public (largely tax-reverted) and private property. These abandoned mines pose potentially significant environmental impairment risk to groundwater and surface water, as well as health and safety risks which include the possibility of collapse, falls, drownings, accidental detonation of misfired explosives, and exposure to lethal gases and mine runoff.

Inventory/Assessment

An inventory of abandoned mines was conducted by Michigan Technological University through a contract issued by the DNR in 1995. The inventory revealed that there are more than 2,000 mine shafts or other openings to the surface that exist in Michigan. Assessments of the condition of these mines are ongoing with progress largely limited by funding constraints.

The DNR received appropriations in fiscal years 1999, 2000, 2001, and 2002 to assist in the closure of state-owned mines. The appropriations funded the closure of 16 mines in 2000 and 15 in 2001. The average cost of closure for the first nine mines was \$4,000, with the most expensive costing \$108,000. During 2002, the DNR fenced and temporarily filled in two additional subsided mine shafts at a cost of approximately \$2,000 each. In 2015, the DNR was notified of non-compliant access issues at one of these mine sites. This location is in the process of being fenced at a cost of \$6,000.

In 2004, the DNR received a Federal Emergency Management Authority (FEMA) grant of \$225,000 (plus a \$6,000 administrative allowance) to be supplemented with \$75,000 of state money for the mitigation of the hazard posed by nine separate mine shafts. Closure of the nine shafts was completed in September 2007, at a total cost of \$265,000.

Priorities

The DNR has a need for funding to address emergency situations and to administer and systematically secure or close additional abandoned mine openings on state-owned lands. There is currently no available funding to cover the cost of a qualified mine consultant to perform these functions. The lack of regular maintenance and closure poses a health and safety risk to the public, as well as to the natural resources, such as surface and ground waters, of the state.

Abandoned Exposed and Above-Ground Oilfield Pipelines

General Background

State oil and gas leases currently require oil and gas pipelines to be buried below plow depth. However, this was not always the case for pipelines crossing state lands. Furthermore, above-ground pipelines are still allowed on private lands. Abandoned pipelines on state lands create safety concerns for fire staff, timber contractors, and recreational public land users. These lines can be extremely difficult to see. In some cases, the lines are still active. Some pipelines have been inadvertently crushed or driven through and broken, potentially releasing unknown hydrocarbon gases and liquids into the ground. Furthermore, the pipelines interfere with wildfire control efforts as equipment cannot be easily maneuvered over or around the lines to continue fire break trenching operations. The lines can also have a negative effect on natural resource-based industries by obstructing access for timber sales, reforestation activities, and recreation activities.

During a May 2012 fire response known as the Cabin Lake Fire, an above-ground pipeline was accidentally cut during suppression operations by DNR staff. This potentially dangerous situation occurred in an older oilfield where the above-ground pipelines were not properly marked. The conditions were smoky and the fact that old, dead vegetation was covering the ground and pipeline hindered the operator's ability to see the pipeline. Members of OMM staff met with oil and gas operators and field staff from Forest Resources Division and Department of Environmental Quality, Office of Oil, Gas and Minerals, to review the Cabin Lake Fire area issues. The intent was to discuss the development of a process to properly identify active pipelines and determine, to the extent possible, if lines have been abandoned and can be removed from state-managed lands.

Inventory/Assessment

An inventory of abandoned oilfield pipelines and a comprehensive assessment of the risks involved in deferring pipeline removal and maintenance was performed in a test area within the Cabin Lake Fire location.

Priorities

Currently there is no specific funding available to address the removal of abandoned above-ground pipelines. To promote the safety of staff and individuals connected with natural resource-based industries (e.g. timber contractors and recreational public land users) the DNR has a need for funding to expand the identification and inventory of abandoned above-ground pipelines statewide. In addition, funding is needed for removal of the abandoned above-ground pipelines crossing public lands and subsequent site restoration.

State Game and Wildlife Areas

General Background

As part of the DNR, the Wildlife Division's mission is to enhance, restore, and conserve the state's wildlife resources, natural communities, and ecosystems for the benefit of Michigan's citizens, visitors, and future generations. Critical to that mission is the protection, restoration, and maintenance of wildlife habitat and user facilities on the state's 100 plus game and wildlife areas consisting of more than 350,000 acres. Annual routine and non-routine maintenance is required to keep Department-managed areas operational and open for public recreational and educational use. Wildlife Division also has primary management responsibility for certain focus areas within the DNR's state forest system, including wildlife floodings, sensitive wetlands, and important deer yards. These areas collectively consist of more than 100,000 additional acres. Please refer to the appendix for the names and county locations of the various State Game and Wildlife Areas.

Most of Michigan's wildlife areas are located in the southern half of the Lower Peninsula where over eighty percent of the state's population resides. Less than ten percent of the public hunting land available in the state is located in southern Michigan, yet a large

percentage of hunting occurs on this publicly owned land. Based on current land use trends on privately owned land, these acreages will become increasingly important to both wildlife and outdoor enthusiasts.

Wildlife-related recreation is an integral part of Michigan's recreation and tourist industry. According to a Congressional Sportsmen's Foundation study, hunters spent approximately \$2.3 billion in Michigan on trip-related expenses and equipment in 2011. In addition, wildlife viewing activities contribute another \$1.2 billion annually to the state's economy. The public benefits of these recreational activities are immeasurable. Presently, state game areas provide habitat for numerous wildlife species that can be hunted, such as waterfowl, wild turkeys, and deer. They also provide important habitat for non-hunted wildlife such as song birds, raptors, shore birds, and small mammals.

Inventory/Assessment

- Current Distribution of Public Hunting Land and Michigan Population by Region

Region	Percent of Public Hunting Land	Percent of Population	Acres Per Person
UP	64	3	20.09
NLP	30	8	3.77
SLP	6	89	0.07

UP = Upper Peninsula; NLP = Northern Lower Peninsula; SLP = Southern Lower Peninsula

- 110 Formally Dedicated Wildlife Division Land Types
 - 94 State Game Areas (SGAs) - Project areas that are administered and managed by the Wildlife Division
 - 12 State Wildlife Areas (SWAs) - Similar to SGAs, these areas are administered and managed by the Wildlife Division. The difference is the result of the dedication process. These areas were created legislatively or through some other dedication process where the decision makers decided to use this terminology as opposed to the more common SGA. Unlike SGAs, the naming of these areas occurred outside of the Wildlife Division; consequently, the Wildlife Division does not have sole authority to adjust these names for consistency.
 - 1 State Fish & Wildlife Area (SFWA) – This is a joint project with Fisheries Division to manage for wildlife and sport fish purposes. Augusta Creek SFWA is the only project of this type; Fisheries Division contributed federal Dingell-Johnson funds for this project to protect water quality in Augusta Creek, a trout stream. Wildlife Division administers and manages this area by maintaining a wooded corridor along the stream to maintain cooler water temperatures and to reduce siltation in the stream. The rest of the area is

managed as a SGA. This project area is administered and managed by the Wildlife Division.

- 3 State Wildlife Research Areas (SWRA) - Similar to SGAs, these areas were originally designed for conducting applied wildlife research by the Wildlife Division. With less research conducted by the Wildlife Division, the areas are functionally managed as SGAs.
- All lands are recorded in the Department's land database. An assessment of the condition of support buildings and other infrastructure within State Game and Wildlife Areas is ongoing. Roads and bridges have not been scheduled for assessment due to a lack of available funding.

Priorities

The land acquisition and infrastructure maintenance priorities outlined in this section are based on Wildlife Division's strategic plan – The GPS (Guiding Principles and Strategies), as well as the Department's Public Land Management Plan. A copy of Wildlife Division's strategic plan is available on the DNR website and can be accessed via the following link:

<http://www.michigan.gov/dnr/0,4570,7-153-10370-232589--,00.html>

The statewide focus is on recreational opportunity and the renovations and repairs needed to maintain facilities and keep infrastructure in a safe and operable condition. The priorities mirror the higher level priorities and metrics of the GPS and the Department's scorecard, specifically:

GPS Goal 4 – Increase public participation, acceptance, and support of hunting and trapping and increase participation in non-consumptive wildlife-related recreation

GPS Objective 4.3 – Increase the retention rate of hunting and trapping license purchasers by twenty-five percent

GPS Strategy 4.3.2 – Increase small game hunting opportunities and promote small game hunting on public and private lands, especially in southern Michigan

GPS Objective 4.4 – Provide access to an additional 20,000 acres of land for public hunting and trapping recreation

DNR scorecard metric (DNR REC-2) – Increase the number of new hunters who purchase a hunting license to at least 75,000 annually

DNR scorecard metric (DNR REC-5): Increase the percentage of hunters who purchase a hunting license in two consecutive years to at least eighty-five percent

Wildlife Division scorecard metric: Increase the retention rate of

hunting and trapping license purchasers by twenty-five percent

GPS Goal 9 – Provide equipment and facilities to fulfill Wildlife Division program priorities

GPS Objective 9.1 – Provide all staff with appropriate facilities and business support tools

GPS Objective 9.2 – Provide all staff with appropriate equipment for maintaining facilities and habitat

GPS Objective 9.3 – Annually, ensure habitat and public access infrastructure is maintained for its wildlife management purpose

Wildlife Division scorecard metric: Increase the percentage of outstanding major maintenance needs addressed

Wildlife Division Acquisition Priorities

- **Michigan Pheasant Restoration Initiative** – This initiative is a partnership with Pheasants Forever, Michigan United Conservation Clubs, U.S. Fish & Wildlife Service, Michigan Department of Agriculture & Rural Development, local conservation districts, and other conservation organizations to facilitate a revitalization of Michigan pheasants. The focus is on working with coalitions of private landowners to restore pheasant habitat on fifteen to thirty percent of the landscape within Pheasant Recovery Areas. Targeted acquisitions for the purpose of protecting and maintaining pheasant habitat are a priority.
- **Michigan Waterfowl Legacy Initiative (MWL)** – This initiative is a 10 year cooperative partnership to restore, conserve, and celebrate Michigan's waterfowl, wetlands, and waterfowl hunting community. MWL is for waterfowlers, other hunters, and the general public. The DNR is focused on acquiring key wetlands for the benefit of wildlife species that thrive in those environments and to open additional wetlands to the public for hunting and outdoor recreational activities. In addition, it is important that the Department address aging pumps and related infrastructure that is inadequate and can no longer function at the levels needed to keep existing wetland areas in optimal condition. In some cases, the existing infrastructure is no longer used as designed, and replacement with simpler structures would improve efficiency with similar results. Without restoration or removal of failing infrastructure, these managed wetlands will decline in quality, resulting in fewer species using the habitat. This will lead to fewer days afield for hunters and wildlife viewers, negatively impacting license sales and tourism activity.
- **Increased hunting access in southern Michigan** – Acquisitions to expand public access are a priority, particularly in areas with low per capita public hunting land and cold spots without hunting access.

Wildlife Division Regional Land Acquisition Priorities

- **Upper Peninsula** – Winter deer habitat, sharp-tailed grouse habitat in Chippewa/East Mackinac Counties, Great Lakes shoreline (piping plovers and other species), rare communities and rare species habitat
- **Northern Lower Peninsula** – Elk range acquisition, consolidation of Wildlife Division administered land
- **Southern Lower Peninsula** – Michigan Pheasant Restoration Initiative, Michigan Waterfowl Legacy Initiative, consolidation within project boundaries – especially providing road access, providing access within fifteen miles of residents, and contiguous forests

Wildlife Division Infrastructure Maintenance and New Construction Priorities

- **Buildings** – Maintenance or improvement of facilities (e.g. headquarter buildings, storage structures, outbuildings, fencing, and animal holding facilities within game and wildlife areas)
- **Parking Lots** – Maintenance or improvement of parking lots for existing game and wildlife areas, as well as landscaping, refuse removal, and renovations to accommodate disabled users. Existing parking lots are typically located near established roads, accommodate four to 35 vehicles, and have a compacted gravel surface.
- **Roads and Trails** – Maintenance or improvement of existing game and wildlife area roads and trails. This includes associated landscaping and compaction of materials to accommodate disabled users.
- **Signs** – Routine and non-routine posting and updating of game and wildlife area boundary and information signs. This includes posting of newly purchased properties, conversion of old sign types, posting of informational signs for special habitat projects, and identification of facilities for disabled users. Wildlife Division adheres to the general guidelines for the graphic reproduction of the Federal Aid in Wildlife Restoration symbols.
- **Bridges** – Maintenance or improvement of bridges to keep existing bridges safe and fully functional
- **Wildlife Structures** – Maintenance or improvement of nest boxes, denning structures, nesting platforms, and other artificial structures that benefit a variety of wildlife species
- **Impoundments** – Maintenance or improvement of existing impoundments, including weirs, dikes, ditches, water supply channels, tubes, gates, pumps, and dams. Maintenance activities include associated mowing, vegetation control, tree and

brush control, replacement of gravel and fill material, riprap, and fencing. Associated structures include gauging stations, barriers, bridges/crossings, docks, boat rollers, and launch sites. Existing impoundments can be as large as 200 acres. However, most of the impoundments are between two and 20 acres in size.

- **Equipment** – Repair or replacement of heavy equipment used statewide. This includes bulldozers, skidders, choppers, hydromowers, hydromulchers, excavators, backhoes, draglines, trailers, dump trucks, stakerack trucks, pickups, portable pumps, farm tractors, farm equipment, and snowmobiles. Wildlife Division is required to maintain its equipment to ensure it is safe and in operable condition.
- **Refuse Removal** – Major and unexpected clearing of unusual materials. This typically involves illegal dumping of unknown materials and chemicals on state wildlife areas that may require hazardous waste removal.

State Parks System

General Background

The Michigan State Parks System includes 71 state parks, 23 state recreation areas, 3 state scenic sites, 3 historic state parks, 5 state park linear trails, and 138 state forest campgrounds. These facilities (243 in total) are dispersed statewide, with approximately one-third located in urban areas. In addition, there are over 18,000 miles of motorized and non-motorized trails (please refer to the appendix of this document for a list of these facilities, excluding state forest campgrounds and non-motorized pathways). The State Park System continued to grow in 2015 with the opening of the new Outdoor Adventure Center in the former Globe Building at Milliken State Park & Harbor, and with the addition of Belle Isle Park in Detroit as an urban state park. Anticipated in 2016 is the addition of Watkins State Park in Washtenaw County, bringing the Michigan State Parks total to 103.

This system serves as the backbone of Michigan's \$22.8 billion tourism industry. These lands and facilities offer unique public outdoor recreation opportunities but also contain significant natural and cultural resources that need protection. The Department continues to focus on maintaining and improving the state parks facility infrastructure, in conjunction with community and private partnerships, to support program operations and land stewardship needs. Priorities for current and upcoming capital improvement projects focus on public health, safety, and welfare issues. Sustainable development is incorporated into all current and future development projects and facility management efforts, along with "green" technology, energy efficiency, and barrier-free/accessible design considerations. These focus areas and initiatives have also been incorporated into the 2009-2019 PRD Strategic Plan. A copy of the strategic plan is available on the Department's website and can be accessed via the following link:

http://www.michigan.gov/documents/dnr/COMPLETE_DOCUMENT_Signed_279037_7.pdf

In 2015, approximately 25 million state park visitors enjoyed the abundant natural and cultural resources celebrated throughout the Michigan State Parks System. Unfortunately, much of the infrastructure that was developed in previous decades through general fund tax revenue to support these visitors, is in need of substantial repair or replacement. The Michigan State Parks System will require significant reinvestment to continue to be responsive to customers' needs and also reflect current recreational trends appropriate to a state system. Individual parks and/or recreation areas can host between a few thousand to over 30,000 visitors daily and are comparable to a small city, with roads, lodging, water treatment facilities, water distribution lines, sewage treatment systems, electrical systems, playgrounds, etc.

PRD has identified and documented the need for over 619 priority renovation and upgrade projects, estimated at a cost of \$312.0 million, within the Michigan State Parks System (this figure does not include State Waterways, Belle Isle Park, or railway system needs). The amount of annual funding available to support basic infrastructure needs continues to fall far short to adequately address the backlog of maintenance, repair, and improvement projects. The infrastructure reinvestment strategy is adjusted each year in order to align funding with the most critical needs.

Michigan's comprehensive state parks and recreation system infrastructure has a total asset replacement value of more than \$1.0 billion. Replacing facilities by the end of their life cycle needs to be a planned function rather than an emergency reaction to infrastructure failure.

A number of the larger infrastructure projects needed for the state parks and recreation areas are significant in cost but are critical to customer service and revenue generation. In many cases, the infrastructure projects are also needed to provide barrier free and ADA compliant accessibility. Additionally, there are critical water and sewer systems that require upgrades to ensure compliance with health and environmental standards. On average, these below ground utilities were constructed 40 to 50 years ago. These infrastructure projects are necessary to support the needs of state parks and recreation area visitors, who contribute a significant share of the system's annual revenue.

The Department continues to explore additional possibilities for partnership and alternative capital improvement funding sources to accelerate needed capital improvements throughout the state parks and recreation areas.

Inventory

Above-ground structures, roads, dams, internal trails, and linear trails were inventoried between 2004 and 2006. Field staff provides attribute updates on an ongoing basis. Dam assessments are completed through an internal contract utilizing structural engineers from the Hydrologic Studies and Dam Safety Unit of the Michigan Department of Environmental Quality (MDEQ) as well as through biannual inspections by local Parks & Recreation Division staff. Inventories for bridges that support vehicles

are being conducted through the Michigan Department of Transportation. Inventories for pedestrian bridges, utility systems, and ADA accessibility will be completed pending the availability of funding. Additions to the system since 2006 (ie: State Forest campgrounds, trails, new facilities, and Belle Isle Park) need to be inventoried and assessed for condition. PRD is currently pursuing inventory alternatives and costs, including needs for incorporating and accessing the data through an efficient asset management database system.

Studies of the top electrical systems and road projects will be completed to prioritize needs and costs for repairs and improvements moving forward. As a general summary, inventoried infrastructure within the Michigan State Parks System (exclusive of Belle Isle Park and State Forest Campgrounds) includes:

- 1,345 buildings
- 468 miles of paved roads
- 43,092 paved parking spaces
- 12,000+ miles of trails
- 12,423 campsites with electrical service
- 1,077 unimproved campsites
- 49 wastewater lagoons
- 232 septic fields
- 68 sanitation stations
- 93 water systems
- 40 dams

In addition to creating an inventory of physical infrastructure, PRD has engaged thousands of park visitors (through staff and volunteer campground hosts) to gather public perspective on facility conditions and improvements and to identify future recreational opportunities.

Assessment

Through PRD's strategic plan, one of the primary goals established was to "Implement management practices to assess and sustain facilities." This goal, which was developed in collaboration with the Michigan State Parks Advisory Committee, addresses the need for a sustainable parks and recreation system where the scale and size of the associated facilities reflect available capital outlay funding. Historically, much of the Michigan State Parks System was developed with General Fund tax support. During the 1970s this support accounted for 70 percent of the system's funding. Today, the system's operating and capital improvement needs are largely funded from restricted revenue sources.

Over the past few years, substantial time and staff resources have been dedicated to inventorying, assessing, and prioritizing infrastructure needs within the Michigan State Parks System. Project needs and current infrastructure conditions are updated, tracked, and reported in order to identify priority projects to be considered for capital outlay funding.

Each fiscal year, Parks & Recreation Division initiates a “call for projects” to collect and prioritize the needs of the state parks and recreation system statewide, identify emerging health and safety concerns, and align projects for potential funding and programming design. This review allows staff the opportunity to update, assess, and qualify needs. Collectively, these concurrent processes provide short and long-term planning strategies based upon varying levels of funding.

The following information provides an overview of the Michigan State Park System’s most basic priority project needs, as of July 2015. These lists are not all-inclusive, but rather focus on the primary support infrastructure that sustains the state parks and recreation system as it is today and does not include annual routine maintenance and repair cost needs.

Primary infrastructure needs include:

Buildings

- Replacement, repair, and demolition of existing structures (e.g. toilet/shower buildings, headquarters, field offices, cabins, garages, visitor centers, registration buildings, contact stations and beach/bath houses, etc.)
- Approximately 162 projects identified at an estimated cost of \$89 million

Utilities

- Replacement, repair, and necessary modifications to meet health & safety requirements for utility systems (e.g. water, sanitary, electrical, storm water, gas and communications, etc.)
- Approximately 94 projects identified at an estimated cost of nearly \$38 million

Roads and Parking Areas

- Preventative maintenance repair, and replacement projects to address the approximately 470 miles of internal roads according to conditional assessments
- Approximately 75 projects identified at an estimated cost of \$63 million

Recreational Structures

- Replacement, repair and modifications to boardwalks, observation decks, fishing piers, floating platforms, playgrounds and field/court areas
- Approximately 153 project identified at an estimated cost of \$34 million

Operational Structures

- Replacement, repair, maintenance, and modifications of bridges, dams and other operational features
- Approximately 38 projects identified at an estimated cost of \$9 million

Major Development

- Complex and extensive development and modernization projects typically requiring a phased approach over several years; examples include addressing

multiple failing utility and road systems that are inadequate to accommodate current and future camping

- Approximately 41 projects identified at an estimated cost of \$62 million

Historical Structures

- Replacement, repair, and accessibility modifications of designated historical structures and amenities
- Approximately 39 projects identified at an estimated cost of \$15 million

Habitat Restoration

- Invasive species control, natural resource protection, and the restoration of critical or damaged habitats
- Approximately 17 projects identified at an estimated cost of \$2 million

Priorities

A master comprehensive capital improvement list for priority project funding is maintained and updated annually. Projects are chosen for funding based on capital outlay and grant money available and the current highest need as determined by PRD's executive leadership (Division Chief and Section Chiefs). To ensure that overall statewide priorities are effectively addressed, the following criteria are used to evaluate projects:

- The project resolves compliance issues (health/safety/welfare)
- The project directly serves the public and enhances the visitor experience
- The project responds to core infrastructure needs (utilities, buildings, roads, etc.)
- Preliminary or final engineering has been completed on the project
- The project responds to high profile issues/needs
- The project has committed partners and associated funding
- The project enhances the ability to generate/sustain revenue
- The project improves overall operational efficiency
- The project improves employee efficiencies

Programming Changes

The primary funding sources which are available and used to support state park and recreation area operations, maintenance, and capital improvements are:

- Recreation Passport Fees Fund – Receives a percentage of Recreation Passport revenues.
- Park Improvement Fund – Receives all revenues derived from camping fees, concession fees, leases, gifts and donations, as well as a percentage of the revenue from the Recreation Passport. The fund was established by 1994 PA 451, Part 741, Sec. 74108 and is constitutionally protected (Article IX, Section 40).
- Park Endowment Fund – When the accumulated principal balance of the Michigan Natural Resources Trust Fund reached \$500 million in May 2011, this fund began receiving all mineral revenues exclusive of interest and earnings.

The fund was established with the passage of Proposal P in November 1994, is designated in statute by PA 451, Part 741, Sec. 74119, and is constitutionally protected (Article IX, Section 35a).

- New Funding Considerations – To accelerate progress toward accomplishing the long list of capital outlay needs, Parks & Recreation Division is exploring the use of partnerships and alternate funding sources.

Moving forward, Parks & Recreation Division will need to focus on the sustainable contraction of park infrastructure in order to have a system that is viable and self-sufficient, based upon the projected revenues and the anticipated levels of available funding for capital improvements.

The diversification of recreational facilities beyond the typical hunting, fishing and camping experiences, and expansion to meet emerging recreational trends, also continues to be a focus in recreational capital improvements. Examples include providing lodging options by converting park manager residences into cottages, erecting yurts, renting teepees, renting pop-up campers, providing equestrian riding and camping facilities, and installing disc golf courses, 3D archery ranges, and a splash park. The Division is now exploring future opportunities for tree house camper unit designs and “glam camping” amenities and alternatives to attract new users.

Based upon current and projected funding, the Department cannot redevelop state park and recreation area infrastructure to the same level and standard at all locations. A tiered approach to strategic capital improvements is one possible method for system-wide reinvestment. Certain facilities that have the demand and capacity could expand certain aspects in order to increase revenue streams (camping, rental structures, day use, etc.), while other locations could reduce infrastructure to more appropriately balance with visitation (occupancy), staffing levels, and long-term maintenance.

Ultimately, a multi-pronged investment strategy is vital, regardless of the amount of available funding. This investment strategy is critical to having long-term sustainability of the state parks and recreation system. The strategy is to purposefully align funding with the renovation, replacement, and reduction of infrastructure to match current recreational needs and emerging trends, while addressing the overlying goal of the division’s strategic plan: “target and focus efforts to engage people in the out-of-doors.”

Mackinac State Historic Parks

General Background

The Mackinac Island State Park Commission has statutory authority for the management and development of the Mackinac State Historic Parks (MSHP). This includes Mackinac Island State Park, which encompasses 82 percent of Mackinac Island (roughly 1,700 acres) and is Michigan’s first state park, established in 1895. Fort Mackinac, an original 18th and 19th century military outpost, and several other historic buildings are located within the island park. On the mainland MSHP operates

Michilimackinac State Park which includes Colonial Michilimackinac, a reconstructed 18th century military and fur trade center, and Old Mackinac Point Lighthouse. Mill Creek State Park is home to Historic Mill Creek Discovery Park a 640 acre park featuring northern Michigan's first water-powered sawmill and three miles of nature trails with interpretive signs and high ropes course activities integrated with a natural history interpretation program. (For additional details, please see the appendix for "Mackinac State Historic Parks Properties and Resources.")

Inventory/Assessment

Because of the scope and diversity of MSHP properties, no single inventory and assessment has been conducted to evaluate the division's infrastructure. Instead, inventories of resources have been conducted in conjunction with other strategic planning processes. They are:

- The ***Detailed Architectural Survey and Risk Assessment (DACS)*** report completed in 1997. This report, which was funded by an Institute for Museum and Library Services grant, includes a prioritized list of MSHP historic building preservation projects which is annually reviewed and updated by the MSHP Historic Preservation Committee.
- ***The Territory Ahead, Mackinac State Historic Parks Strategic Plan, 2012-2017.*** Infrastructure and capital outlay needs are identified, prioritized, and addressed in this five-year strategic plan.
- Infrastructure projects at the Mackinac Island Airport (which is managed by MSHP) are guided by the 10-year ***Mackinac Island Airport Improvement Plan, 2015-2024***, developed in conjunction with MDOT-Aeronautics and contract engineers.
- In 2014 Mackinac State Historic Parks completed a comprehensive ***Park Facility Inventory and Assessment Report***, which identified 148 buildings and structures within the MSHP. Of this number, the managers identified 38 facilities that are in need of immediate repairs. This inventory and assessment will serve as a foundational document for prioritizing future work projects and measuring success.

Projects are prioritized by staff based on the institutional mission and approved by the Mackinac Island State Park Commission. These priorities include:

- Public health, safety, and welfare
- Preservation of irreplaceable historic structures and resources
- Expanding and improving the public presentation of MSHP's historical and recreational resources

Recent Accomplishments

In fiscal year 2015, MSHP successfully accomplished a number of infrastructure improvement and capital outlay projects including:

- Construction of the Mackinac Island Peace Garden at Marquette Park, Mackinac Island
- Opening the “Straits of Mackinac Shipwreck Museum” at Old Mackinac Point Lighthouse, Mackinaw City
- Reconstruction of Fort Holmes, Mackinac Island
- Construction of an addition to the Snow Removal Equipment building at the Mackinac Island Airport
- Completion of the Mackinac Island Trail Improvement project

Priorities

A list of priority projects has been developed for fiscal year 2017 and beyond. Economic conditions and available funding will largely dictate the extent to which MSHP is able to complete these projects.

FY 2017

- Replace wood walkways, gun platforms and stairways and improve drainage system at Fort Mackinac

FY 2018

- Initiate repair/replacement of log walls and foundations at Colonial Michilimackinac, beginning with Blacksmith Shop and Priest's House

FY 2019

- Construct new restroom at Arch Rock, Mackinac Island State Park
- Address brick deterioration problem at Old Mackinac Point Lighthouse

FY 2020

- Replace 1940s restroom in day-use park at Colonial Michilimackinac

FY 2021

- Construct a lift to provide access to Fort Mackinac for visitors with disabilities

Waterways - Harbors, Docks, and Boating Access Sites

General Background

The Department of Natural Resources recognizes the importance of enhancing opportunities for recreational boating in Michigan. Boating facilities and support services utilized by the public are necessary ingredients in offering quality boating experiences. The economic impact of recreational boating in Michigan is a significant factor to the financial well-being of many communities and the state overall.

The Michigan State Waterways Fund supports boating programs, including boating access sites, harbors, harbors-of-refuge, locks, and grants for both state and local

facilities under the advice of the Michigan State Waterways Commission. The Harbor-of-Refuge system provides safe harbors to boats that cruise the Michigan shoreline, so that boaters are no more than 30 miles from a safe harbor.

Current trends in the boating industry have shown that boaters are taking fewer trips, but the trips they are taking are longer. There are many larger vessels that have been left in storage or in their slips without leaving the marina, to be used as floating cottages. Gasoline consumption continues to decline. The reduction in gallons sold lowers the gas tax revenue collected, impacting the Waterways funding available for capital outlay projects.

The State Waterways Program provides transient and seasonal boat slips at state-administered harbor facilities throughout the Michigan Great Lakes, in addition to recreational boating access to the Great Lakes and inland lakes throughout the state. The DNR currently administers 19 state harbors and over 1,100 state boating access sites. The DNR also operates two locks on the Inland Waterway, a chain of rivers and lakes nearly linking Lake Huron with Lake Michigan through the northern part of the Lower Peninsula.

The Grant-In-Aid (GIA) Waterways Program provides grants to local units of government for Great Lakes harbor facilities and boating access site facilities, including sites providing public boating access to inland lakes. There are 63 GIA harbors, along with approximately 200 GIA boating access sites that are supported technically and financially by the DNR with Waterways funding. Additionally, there is one federally administered harbor and one public-private administered harbor within the system. The presence of local harbors and boating access sites enhances the quality of life of Michigan citizens and contributes to local economic growth. In order to be responsive to local community project needs, the DNR evaluates grant requests on an annual basis and therefore cannot project or commit those community requests for grants in the form of a five-year plan.

Inventory

There are 1,369 boating access sites in the state, of which 1,186 are state facilities administered by the DNR (some are not yet developed). The remaining 183 sites are managed by local units of government in partnership with the GIA Waterways Program. In addition, there are 84 harbors-of-refuge sponsored by the Michigan State Waterways Commission. The DNR manages 19 of these harbors, with an additional 64 harbors managed by local units in conjunction with the GIA Program, and one harbor managed by the federal government. (For a list of the various state harbors and developed boating access sites, please refer to the appendix.)

The last location inventory was completed in 2008. State waterways inventory information was merged with the Michigan State Parks System inventory in the Infrastructure Management Application (IMA) in 2009 for comprehensive and consistent management of these state assets.

In December 2012, a survey of local harbor conditions was conducted in response to record-breaking low water levels that could potentially close recreational boating facilities. A total of 60 facilities were identified as in need of emergency dredging. To provide the necessary funds, the legislature approved a special funding appropriation to allow emergency dredging to occur at communities around the state. This emergency need necessitated deferring several awarded projects to realign funding priorities for the Emergency Dredging Plan.

Assessment

Infrastructure continues to age well past life expectancies and greater deterioration of facilities is starting to show in spite of efforts to extend their lifespan. The vast majority of harbor facilities (98 percent) were developed over 40 years ago. Approximately 86 percent of all harbor and boating access site facilities are over 30 years old, with a normal life expectancy ranging from 20 to 30 years. It is anticipated there will be a rapid succession of requests in the next few years, many in emergency status, for infrastructure replacement and repair. Currently, there are over 100 active capital outlay projects in various stages of development. This is in addition to the numerous small, routine maintenance and repair projects performed by state field staff, averaging over 200 projects annually.

Additionally, infrastructure improvement needs have grown due to established projects placed on hold to fund emergency dredging. Now that lake levels have risen to more typical levels, the threat of closing recreational boating facilities has diminished. Those projects that were placed on hold to fund emergency dredging now need to be funded. This will necessitate looking at a phased approach when considering larger projects such as a harbor renovation.

Project infrastructure varies widely between boating access sites and harbors. While access sites have little infrastructure (e.g. ramps, parking lots, and vault toilets), harbors are complex, infrastructure-intense facilities. Harbors can contain sheet pile breakwalls, rubblemound wave protection, shower and restroom facilities, fuel stations, floating or fixed piers, pilings, shore riprap protection, fire-fighting facilities, ice protection equipment, and other special equipment required for public safety, in addition to ramps and parking lots. Harbor infrastructure is very expensive, with costs typically ranging from approximately \$4 to \$8 million for a comprehensive upgrade, depending on the facility. Boating access site upgrades typically range from \$10,000 to \$250,000 depending on the scale of the improvements and whether the project is completed in-house with state field staff or contracted out to private companies.

Each year, all state boating access sites and harbor facilities are inspected, and conditions are recorded. Maintenance, upgrades, and replacements are scheduled annually. Not all improvements can be accomplished due to limited funds, creating a backlog of projects.

Primary state infrastructure needs include:

Roads and Parking Areas

- New construction, preventative maintenance, repair, and replacement projects to address internal parking lot and entrance road surfaces at boating access sites and harbor/marina facilities
- 81 projects identified at an estimated cost of \$15 million

Major Development

- Complex and extensive development and modernization projects typically requiring a phased approach over several years; examples include complete facility redevelopments and new developments of various boating access sites
- 32 projects identified at an estimated cost of \$21 million

Operational Structures

- New construction, preventative maintenance, repair, and replacement of seawalls, docks, launch ramps, locks/dams, and other operational features
- 15 projects identified at an estimated cost of \$6 million

Dredging

- Excavation of water substrate within or leading to/from a harbor or a boating access site
- 10 projects identified at an estimated cost of nearly \$2 million

Utilities

- New construction, replacement, repair, and necessary modifications to meet health & safety guidelines and requirements for systems such as water, sanitary, electrical, storm water, gas, and communications
- 4 projects identified at an estimated cost of \$285,000

Buildings

- New construction, replacement, repair, and demolition for harbormaster buildings/comfort stations, field offices, pavilions, attendant booths, vault toilets, and other related structures
- 5 projects identified at an estimated cost of over \$1 million

GIA facilities are inspected prior to new grant projects being awarded, at the end of a grant agreement's obligation, and when other circumstances such as safety issues warrant. Communities are invited to participate with DNR inspectors to receive first-hand knowledge of inspection findings in order to assist in the correction of deficiencies.

Recent Accomplishments/Ongoing Initiatives

State Projects

Potential state boating projects are submitted by PRD district staff annually and are prioritized for funding based on assessment criteria. During the past fiscal year, several major accomplishments were realized:

- East Tawas State Harbor/ Iosco County – Facility Design

- Cheboygan Lock and Dam/Cheboygan County – Embankment Repair
- South Higgins Lake State Park/Roscommon County - Redevelopment
- Aloha State Park Boating Access Site/Cheboygan County – Channel Dredging
- Half-Moon Lake Boating Access Site/Washtenaw County – Paving Repair
- Conely Pt. Boating Access Site/Chippewa County – New Construction
- Porcupine Mountains, Union Bay Boating Access Site/Ontonagon County – Redevelopment
- Silver Lake State Park Boating Access Site/Oceana County – Facility Design & Redevelopment
- Fayette State Harbor/Delta County – Facility Design & Redevelopment
- Bolles Harbor Boating Access Site/Monroe County – Construction, Phase 2 Paving & Repairs
- Selfridge Boating Access Site/Macomb County – Construction, Phase 2 Paving & Repairs

Grant-In-Aid (GIA) Recently Completed Projects:

- Sault Ste. Marie – George Kemp Municipal Marina/Chippewa County – Fuel Tank Repair
- East Jordan Municipal Marina/Charlevoix County – Sediment Diversion Wall
- Essexville Smith Park Boating Access Site/Bay County – Boating Access Site Improvements
- Port Sanilac Municipal Marina/Sanilac County – Light Pole Replacements
- Sebewaing Municipal Marina/Huron County – Channel Dredging
- Bay City Municipal Marina/Bay County – Marina Basin Dredging
- Schoolcraft Township Municipal Marina/Houghton County – Grand Traverse Bay Channel Dredging
- Frankfort Municipal Marina/Benzie County – Marina and Channel Dredging
- St. Ignace Municipal Marina/Mackinac County – Marina Dredging

Grant-In-Aid (GIA) Current Projects:

- Menominee River Park Boating Access Site/Menominee County – Boating Access Site Improvements
- Menominee 18th Street Boating Access Site/Menominee County – Boating Access Site Improvements
- Petoskey Municipal Marina/Emmet County – Dock Decking and Dock Office Replacement
- Pentwater Municipal Marina/Oceana County – Electrical System Replacement Study
- Acme Township Sayler Park Boating Access Site/Grand Traverse County – Boating Access Site Improvements

Priorities

The current strategy for project funding is to ensure that all facilities are funded at least minimally, to keep them safe and open to the public. Preventative maintenance and proactive replacement schedules have not been options since the number of facilities

needing correction or replacement exceeds the funding capabilities. This applies to both State and GIA-operated waterways facilities. To provide basic funding for the needs of the statewide system, it would require that approximately \$17 to \$20 million (five percent of the estimated infrastructure value) be spent annually on facility capital improvement upgrades. Within the next five years, an increase in needs for both state projects and GIA projects is anticipated.

Priority projects are selected in light of the Department's strategies of Operational Need, Preventative Maintenance, Accessibility, and Recreational Opportunities in/near Urban Areas, Partnering/Consolidation, and Energy-Efficient Facilities. The inclusion of several GIA projects is consistent with the Department's ongoing commitment to work in partnership with local government agencies and other entities to develop and maintain public recreational opportunities.

State Projects

A list of state waterways infrastructure improvement priority projects is updated and maintained on an ongoing basis. Lump sum funding for state boating infrastructure, maintenance, repairs, and improvements continues to be a priority. Currently, dock improvements and upgrades at Lime Island State Harbor is a priority project.

Grant-in-Aid (GIA) Projects

As a strategy to receive state grant assistance, communities applying for Waterways funding through the GIA program have begun phasing their projects in order to submit requests for smaller dollar amounts. Though the dollar amounts awarded are smaller, more communities have worked incrementally toward large scale harbor improvements using this phased approach. Some projects that are priorities for GIA funding include:

- Lump sum funding for local boating facilities repair, maintenance, emergencies and improvements through grants to local governments
- Harrisville Harbor Dock Replacement and Related Repairs (Alcona County)
- South Haven Black River Park Boating Access Site (Van Buren County)
- Whiting Park Boat Launch and Parking Area (Charlevoix County)
- Munising Bay Shore Marina Improvements (Alger County)

Programming Changes

- In January 2012, the DNR implemented organizational changes that resulted in the transfer of management, oversight, and certain staff connected with state forest boating access site facilities from Forest Resources Division to Parks and Recreation Division. This considerable change has impacted day-to-day operational duties for specific Parks and Recreation Division units and districts in northern Michigan, along with Lansing staff. To date, activities have focused on addressing basic maintenance needs to respond to issues of safety and general boating access.
- The combination of previous low water levels on the Great Lakes and the presence of invasive species, specifically vegetative, have created challenges to various boating access sites to adequately provide water access to the boating

public. This impacts Parks and Recreation Division's operations and maintenance of facilities.

- The number of infrastructure capital improvement needs in a harbor system of 84 facilities is great and each upgrade can equate to millions of dollars in expenditures. However, sufficient funding is not available to keep up with the needed repairs. Therefore it is important the state's harbor and boating access site system be evaluated based on several factors including geographic location, feasibility, economics, water dynamics, occupancy, sustainability, and other factors to assess the overall public value.

Historical Program Infrastructure and Facilities

General Background

The DNR operates the Michigan Historical Center (MHC), which includes the Archives of Michigan and the Michigan Historical Museum System. Both share a storage facility in Lansing with Department of Technology, Management, and Budget (DTMB) Records Management Services. The museum system includes the flagship Michigan Historical Museum and 10 historic sites and museums, eight of which are in state parks. The MHC is responsible for maintaining the Mann House in Concord and the Iron Industry Museum in Negaunee. DNR or DTMB are responsible for general maintenance of the other facilities. The MHC is responsible for all exhibits and care of all historic materials at each of the facilities. More than 350,000 people visit these sites each year.



Inventory/Assessment

Assessments of the buildings are completed on an ongoing basis. The most recent inventory of collections protection issues was completed in 2015 in preparation for seeking grant support for improvements. The major problems identified concern shelving and fixtures that provide better protection for collections.

The MHC has a long list of deferred maintenance problems that have been identified throughout the museum system. Some major projects are supported by Historic Structure Reports created by architects in the late 1990s. Of immediate priority are the failed roofs and overhangs at the Iron Industry Museum in Negaunee, roof and other work at the Mann House Museum in Concord, and lighting systems and window protection at various sites.

Recent Accomplishments

Recent accomplishments include window repair at Hartwick Pines State Park, repair of the furnaces at Fayette Townsite, completion of the Historic Structures Report which was partially grant funded, architectural work at Fort Wilkins, and rewiring and interior finishing in the east wing of the Hewitt House at Cambridge Junction State Park.

Priorities

The following are priority deferred maintenance needs:

Iron Industry Museum (MHC)

- Ice dam problems in 2005 addition (engineering plan has been completed)
- Moss covering overhang roofs on older part of the building
- Timber steps rotting outside of building
- Removal of hazardous asphalt path

Mann House

- Repair/replacement of leaky roof

Fort Wilkins Historic Complex, Fayette State Park, Cambridge Junction State Park

- Ultraviolet (UV) protection for windows and lights which has aged beyond its guaranteed ability to prevent deterioration caused by light
- LED lighting in field site museums to replace approximately 300 windows in historic buildings that allow damaging UV light to shine on artifacts in exhibits

Current funding is insufficient to adequately maintain and preserve buildings of historical significance both in state parks and under the management of the Center. Additional funding is needed for historic facility repair and maintenance to address the backlog of maintenance and repair needs, improve energy efficiency, and ensure state historical buildings and artifacts are safe and accessible to the public.

Shooting Ranges

General Background

The DNR manages five staffed shooting ranges, two leased ranges, six official unstaffed ranges, and numerous unofficial ranges on DNR-managed public land that provide shooting opportunities to the public. The leased shooting ranges, and several of the staffed shooting ranges, generate revenue for the Department from fees and concessions. The Department signed a 20-year lease with Michigan Shooting Centers, Inc., starting October 1, 2009, for the operation and maintenance of the Bald Mountain and Island Lake shooting ranges.

Staffed Shooting Ranges

Dansville: Mason, Ingham County
Ortonville: Ortonville, Oakland County
Pontiac Lake: Waterford, Oakland County
Rose Lake: Bath, Clinton County
Sharonville: Grass Lake, Jackson County

Leased Shooting Ranges

Bald Mountain: Lake Orion, Oakland County
Island Lake: Brighton, Livingston County

State-managed shooting ranges provide locations for licensed hunters to practice their archery and firearms, as well as support the growth of shooting sports. The ranges are utilized by hunter education groups, scouting groups, 4-H groups, persons with disabilities, and other youth and non-traditional user groups as locations to receive hands-on firearm and archer safety education training. The ranges provide safe and controlled settings for the general public to develop skills and proficiency in firearm use with a natural tie-in with the hunting sports.

Inventory

An inventory of the structures within the shooting range system was last completed during 2014.

Assessment

A professional assessment has not been completed. Internal assessments are completed on an ongoing basis each year.

In 2014, the Department formed a multi-divisional workgroup to determine the strategic direction for shooting ranges. These efforts were intended to identify areas of shooting conflicts on state lands, formulate a five-year development strategy, and develop partnerships to grow shooting sports. Prioritization criteria for existing range enhancements and new range development were established and include:

- Evaluate geographical gaps in public opportunities and access to shooting ranges
- Determine a desired density of shooting ranges in relation to population centers
- Address issues related to safety, operations, noise, and conflict at shooting ranges
- Embrace and grow partnerships that can support operations, promotion, and the financial match requirements of grants

The current number of designated shooting ranges is inadequate and is not geographically distributed to accommodate the growing number of recreational shooters in Michigan. The DNR has identified over 70 locations on DNR-managed public land that are being used by the public as shooting areas. Use of these areas has resulted in numerous conflicts between shooters and area residents, litter on state land, and damage to natural resources (e.g. lead deposits from bullets). Because the Department manages over 4 million acres of public land, there are considerable options through the state game areas, state forests, state parks, and state recreation areas to relieve the pressure and scrutiny that shooting ranges face from residential and commercial development.

Recent Accomplishments

In September 2015, the Department received a five-year grant from the US Fish & Wildlife Service in the amount of \$3 million with a 25 percent match requirement (\$1 million) for a total for \$4 million to thoroughly address the development of shooting

ranges within Michigan. The primary focus is to prioritize the existing locations that need to be redeveloped or modified as well as locations that have been proposed for new range development. Additionally, this grant will support the internal staff within the Department's Finance and Operations Division who is focused on managing and implementing these efforts under the grant. This grant will focus on site analysis and design and construction. It is intended to be complimentary to the Department's operational grant for statewide archery education and shooting range programs which addresses programs and operations overseen by the Marketing and Outreach Division.

Having a statewide development program for shooting ranges funded through the U.S. Fish and Wildlife Service (USFWS) grant will provide a broader network of opportunities for not only existing users but also for growing markets such as families, women, and children. Having closer proximity to public ranges will allow for easier access and additional options for hunter and shooting programs. Overall, this financial investment in Michigan will grow the number of public ranges.

Outreach in the form of partnerships is another expected benefit. By involving the local and regional hunting and sporting groups in decision making processes there will be some operational components taken on by these groups. Through the sharing and aligning of resources, the local groups will have access to improved ranges and the Department will have confidence knowing that entities with a vested interest are assisting in looking after the investments.

An additional \$617,000 development grant through the USFWS was secured and leveraged with \$200,000 of private funding from The Hal & Jean Glassen Memorial Foundation to construct an education building at the Rose Lake Shooting Range. This 4,400 square foot building will provide a classroom setting for hunting and educational programming, restrooms, small office space, and interpretive materials. The construction is anticipated to be completed by the end of August 2016.

A \$300,000 Michigan Natural Resources Trust Fund (MNRTF) grant was awarded in fiscal year 2012 for the renovation of the Dansville shooting range and the project was recently completed. Work included a new entrance drive and parking; reconfiguration of the 25, yard, 50 yard, and 100 yard shooting stations; berm work; and installation of a vault toilet.

A \$25,000 range development grant from the National Rifle Association (NRA) was combined with approximately \$80,000 of Marketing & Outreach Division funding to modify the Sharonville Shooting Range in order to provide 25 yard handgun opportunities. The project is anticipated to begin early in fiscal year 2016.

Objectives

The overarching goal of the five-year USFWS grant is to expand and improve the amount of public shooting ranges within Michigan with a strategic focus on addressing safety and conflict areas. This goal will be achieved by September 2020 through the following objectives:

- Make physical improvements at existing, designated DNR-managed ranges
- Develop new Department ranges from the 70 plus undesignated locations where shooting has been occurring
- Expand leases / concessionaires to establish a staffing presence
- Provide financial assistance for improvements to the broader network of non-state managed public ranges
- Properly staff the Department's shooting range development program

Priorities

Over the USFWS' five-year grant period, the intent is to focus statewide on expanding shooting opportunities across the network of ranges that are open to the public.

As priorities are identified, the grant will be amended with site specific information, including if the range is already designated, a location where shooting is already occurring on state lands in an undesignated manner, or an existing range operated by a third party that is open to the public. Additional information would include:

- Scope of work statement
- Desired outcomes
- Cost estimate
- Construction documents such as plans and specifications
- Project partners

Initial priorities are being identified by each land managing Division within the Department based upon opportunities as well as safety and conflict concerns. Initial locations targeted for improvements over the next five years include:

- Newly developed range sites in the following counties:
 - Grand Traverse County
 - Roscommon County
 - Crawford County
 - Marquette County
 - Ontonagon County
 - Alpena / Presque Isle Counties
 - Lapeer County
- Modifications to existing range sites at the following locations:
 - Echo Point, Allegan State Game Area
 - Algonac State Park
 - Sharonville Shooting Range
 - Pontiac Lake Shooting Range

Interpretive Centers

General Background

The DNR operates eight interpretive centers, six at Michigan state parks and two at state fish hatcheries. All but one of these visitor centers are staffed by full-time interpreters. Tahquamenon Falls State Park and Ludington State Park are additional sites where year-round interpretive programs are run without a traditional visitor center. DNR Marketing and Outreach Division is responsible for programming and Fisheries Division and Parks and Recreation Division handle major maintenance and capital improvements. More than 300,000 people visit these centers annually.

Visitor Centers

State Parks

Carl T. Johnson Hunting & Fishing Center – Mitchell State Park
Eddy Discovery Center – Waterloo State Recreation Area
Gillette Sand Dune Visitor Center – Hoffmaster State Park
Michigan Forest Visitor Center – Hartwick Pines State Park
Saginaw Bay Visitor Center – Bay City State Recreation Area
Wilderness Visitor Center – Porcupine Mountains State Park

Fish Hatcheries

Michigan Fisheries Visitor Center – Oden State Fish Hatchery
Wolf Lake State Fish Hatchery Visitor Center

Inventory/Assessment

An inventory of the DNR's visitor centers has been completed. Assessments of the condition of the buildings are also completed by the staff of Fisheries Division and Parks and Recreation Division on an ongoing basis.

Recent Accomplishments

Parks and Recreation Division recently renovated the Historic Ludington Beach House, obtained grant funding, and developed interpretive exhibits to be placed in the upper level. These new exhibits are scheduled to be placed early in fiscal year 2016. In addition, Fisheries Division and Marketing and Outreach Division recently completed infrastructure improvements at the Michigan Fisheries Visitor Center fishing ponds. This project protects the resource from erosion and provides universally accessible fishing instruction opportunities for families and children. Continued archery range improvements have also been completed at Tahquamenon Falls State Park.

Priorities

The fishing pond at the Wolf Lake State Fish Hatchery is in need of improvements to facilitate introductory fishing programs and improve accessibility at the site. A MNRTF grant has been awarded to add a universally accessible fishing pier and viewing area. The project has been designed and will be constructed early in fiscal year 2016. Major renovations to these park and hatchery visitor centers are a critical need for the department. Saginaw Bay Visitor Center and Hartwick Pines Visitor Center have now been open for 20 years without updates. The wear and tear of daily use combined with outdated messaging make these and other renovations a priority. Additional unfunded priorities include an amphitheater and archery range at Hartwick Pines State Park and a fishing pond at the Rivermouth Unit at Tahquamenon Falls State Park.

IMPLEMENTATION PLAN

Capital outlay appropriations will be needed to address priority infrastructure maintenance, repair, and improvement needs across the DNR. Repair and replacement of critical infrastructure that is rapidly aging and deteriorating has become increasingly difficult due to limited funding. Future appropriation requests will reflect the Department's best efforts to leverage available funding and selectively address infrastructure needs that exist based on the priorities laid out in this plan. These priorities are consistent with the Department's capital outlay planning strategy and core strategic goals.

APPENDIX

Customer Service Center (CSC) and Field Office Locations

CSCs (10)

Baraga
Bay City
Cadillac
Detroit
Gaylord
Marquette
Newberry
Plainwell
Roscommon
Lansing

Field Offices (15)

Atlanta
Baldwin
Crystal Falls
Escanaba
Gladwin
Grayling
Gwinn
Ishpeming
Mio
Naubinway
Norway
Sault Ste. Marie
Shingleton
Stephenson
Traverse City

State Game and Wildlife Areas by County

Alcona County:

- Hubbard Lake State Game Area

Alger County:

- Au Train Basin State Wildlife Management Area
- Cusino State Wildlife Research Area

Allegan County:

- Allegan State Game Area

Alpena County:

- Devil's Lake and Devil's River Flooding State Wildlife Management Area

Antrim County:

- Petobego State Game Area (northern portion)

Arenac County:

- Wigwam Bay State Wildlife Area

Baraga County:

- Baraga Plains State Wildlife Management Area
- Net River Flooding State Wildlife Management Area
- Sturgeon River Sloughs State Wildlife Management Area (southern portion)

Barry County:

- Barry State Game Area
- Middleville State Game Area

Bay County:

- Crow Island State Game Area (northern portion)
- Fraser Township No.1 (Townline Road) State Game Area
- Fraser Township No.2 (Kitchen Road) State Game Area
- Nayanquing Point State Wildlife Area
- Pinconning Township State Game Area
- Quanicassee State Wildlife Area (western portion; majority)

Benzie County:

- Betsie River State Game Area
- Grass Lake Flooding State Wildlife Management Area

Berrien County:

- Boyle Lake State Wildlife Area
- Webster Lake (Berrien Township No.1) State Game Area

State Game and Wildlife Areas by County

Cass County:

- Crane Pond State Game Area
- Three Rivers State Game Area (west portion)

Charlevoix County:

- Beaver Islands State Wildlife Research Area

Cheboygan County:

- Dingman Marsh Flooding State Wildlife Management Area
- Dog Lake Flooding State Wildlife Management Area
- Stoney Creek Flooding State Wildlife Management Area

Chippewa County:

- Cranberry Lake Flooding State Wildlife Management Area
- Drummond Island Pigeon Cove Flooding State Wildlife Management Area
- Munuscong State Wildlife Management Area
- Potagannissing Flooding State Wildlife Management Area

Clare County:

- Townline Creek Flooding State Wildlife Management Area
- Old Fur Farm Flooding (Floodwood Swamp) State Wildlife Management Area

Clinton County:

- Maple River State Game Area (central portion)
- Muskrat Lake State Game Area
- Portland State Game Area (east portion)
- Rose Lake State Wildlife Area (west portion)

Crawford County:

- Conner's Marsh State Wildlife Management Area

Delta County:

- Friday Flooding State Wildlife Management Area
- Portage Marsh State Wildlife Management Area

Dickinson County:

- Blomgren's Marsh Flooding State Wildlife Management Area
- Felch Mountain State Wildlife Management Area
- Gene's Pond Flooding State Wildlife Management Area
- Groveland Mine Flooding State Wildlife Management Area
- Hancock Creek Flooding State Wildlife Management Area
- Hardwood Reservoir Flooding State Wildlife Management Area
- Lake-36 Flooding State Wildlife Management Area

State Game and Wildlife Areas by County

Eaton County:

- Charlotte (Eaton Township) State Game Area
- Lake Interstate State Game Area
- Tamarack Lake (Sunfield Township) State Game Area
- Windsor Township State Game Area (near State Secondary Complex)

Emmet County:

- French Farm Lake Flooding State Wildlife Management Area
- O'Neal Lake Flooding State Wildlife Management Area

Gladwin County:

- Bentley Marsh Flooding State Wildlife Management Area
- Gladwin State Game Area
- Gladwin Wildlife/Game Unit & Gladwin Dog Field Trial Area of Gladwin State Forests
- Molasses River Flooding Number 1 State Wildlife Management Area
- Molasses River Flooding Number 2 State Wildlife Management Area
- Molasses River Flooding Number 3 State Wildlife Management Area
- Molasses River Flooding Number 5 State Wildlife Management Area

Grand Traverse County:

- Headquarter's Lake Flooding State Wildlife Management Area
- Lake DuBonnet Flooding State Wildlife Management Area
- Petobego State Game Area (southern portion; majority)

Gratiot County:

- Gratiot-Saginaw State Game Area (west portion)
- Maple River State Game Area (north/eastern portion)
- Maple-River - Gratiot-Saginaw Connector State Game Area

Hillsdale County:

- Adams Township State Game Area
- Lost Nation State Game Area
- Somerset State Game Area

Houghton County:

- Pike Lake Flooding State Wildlife Management Area
- Sturgeon River Sloughs State Wildlife Management Area (northern portion)

Huron County:

- Brookfield Township No.1 State Game Area
- Brookfield Township No.2 State Game Area
- Gagetown State Game Area (northern portion; majority)
- Oliver Township State Game Area
- Rush Lake State Game Area
- Verona State Game Area

State Game and Wildlife Areas by County

Huron County (Cont.):

- Wildfowl Bay State Wildlife Area

Ingham County:

- Dansville State Game Area
- Grand River Gale Road State Game Area

Ionia County:

- Flat River State Game Area (southern portion)
- Grand River State Game Area
- Maple River State Game Area (western portion)
- Portland State Game Area (western portion; majority)
- Saranac-Lowell State Game Area (eastern portion)

Iron County:

- Deer River Flooding State Wildlife Management Area

Isabella County:

- Edmore State Game Area (northern portion)

Jackson County:

- Grass Lake State Game Area
- Malan Waterfowl Production Area
- Schlee Waterfowl Production Area
- Sharonville State Game Area (west portion; majority)
- Waterloo Game Unit (west portion; majority) of Waterloo State Recreation Area

Kalamazoo County:

- Augusta Creek State Fish and Wildlife Area
- Fulton State Game Area
- Gourdneck State Game Area

Kalkaska County:

- Addis Creek Flooding State Wildlife Management Area (northern portion)
- Grass Lake Marsh Flooding State Wildlife Management Area (northern portion)
- Goose Creek Flooding State Wildlife Management Area
- Skegemog Lake Wildlife Unit State Wildlife Management Area (or Wildlife Unit) of Pere Marquette State Forests

Kent County:

- Cannonsburg State Game Area
- Rogue River State Game Area
- Saranac-Lowell State Game Area (western portion)

Lake County:

- Little Widewaters Flooding State Wildlife Management Area

State Game and Wildlife Areas by County

Lapeer County:

- Lapeer State Game Area

Leelanau County:

- Beaver Islands State Wildlife Research Area

Lenawee County:

- Onsted State Game Area
- Schoonover Waterfowl Production Area

Livingston County:

- Gregory State Game Area
- Hillcrest State Game Area
- Oak Grove State Game Area
- Unadilla State Wildlife Area (northern/northwestern portion; majority)

Luce County:

- Blind Sucker River Flooding State Wildlife Management Area
- Dollarville Flooding State Wildlife Management Area

Mackinac County:

- Black Creek Flooding State Wildlife Management Area

Macomb County:

- Chesterfield Township State Game Area
- Salt River Marsh State Wildlife Area

Manistee County:

- Manistee River State Game Area

Marquette County:

- Lake LaVasseur Flooding State Wildlife Management Area
- Sand River / Jeske Flooding State Wildlife Management Area

Mason County:

- Pere Marquette State Game Area

Mecosta County:

- Haymarsh Lake State Game Area
- Martiny Lake State Game Area

Menominee County:

- Hayward Lake to North Lake Floodings State Wildlife Management Area
- Peterson Pond Flooding State Wildlife Management Area

State Game and Wildlife Areas by County

Midland County:

- Bluff Creek / US-10 / M-18 Floodings State Wildlife Management Area
- Kawkawlin Creek Flooding State Wildlife Management Area

Missaukee County:

- Addis Creek Flooding State Wildlife Management Area (southern portion; majority)
- Cannon Creek Floodings Number 1 State Wildlife Management Area
- Cannon Creek Floodings Number 2 State Wildlife Management Area
- Dead Stream Flooding State Wildlife Management Area (western portion)
- Grass Lake Marsh Flooding State Wildlife Management Area (southern portion; majority)
- Houghton Lake State Wildlife Research Area
- Osceola-Missaukee Grasslands Lake State Game Area (north/northeastern portions)

Monroe County:

- Erie State Game Area
- Petersburg State Game Area
- Pointe Aux Peaux State Wildlife Area
- Pointe Mouillee State Game Area (southern portion; majority)

Montcalm County:

- Edmore State Game Area (southern portion; majority)
- Flat River State Game Area (northern portion; majority)
- Langston State Game Area
- Stanton State Game Area
- Vestaburg State Game Area

Montmorency County:

- Rainy River Flooding State Wildlife Management Area
- Sage Lakes Flooding State Wildlife Management Area
- Sportsman's Lake Flooding State Wildlife Management Area
- Tomahawk Creek Flooding State Wildlife Management Area (southern portion; majority)

Muskegon County:

- Muskegon State Game Area (western/southwestern portion; majority)
- Muskegon County Wastewater Management System Special Wildlife Management Area
(a County cooperator during managed waterfowl hunt seasons)

Newaygo County:

- Muskegon State Game Area (eastern/northeastern portion)

State Game and Wildlife Areas by County

Oakland County:

- Davisburg State Wildlife Area
- Holly State Recreation Area
- Horseshoe Lake State Game Area

Oceana County:

- Pentwater River State Game Area

Osceola County:

- Osceola-Missaukee Grasslands Lake State Game Area (north/northeastern portions)

Ottawa County:

- Bakale Wildlife Unit of Bass River State Recreation Area
- Blendon Township State Game Area
- Grand Haven State Game Area
- Olive Township State Game Area

Presque Isle County:

- Tomahawk Creek Flooding State Wildlife Management Area (northern portion)

Roscommon County:

- Backus Creek State Game Area
- Backus Lake Flooding State Wildlife Management Area
- Bear Creek Flooding State Wildlife Management Area
- Dead Stream Flooding State Wildlife Management Area
- Denton Creek Flooding State Wildlife Management Area
- Houghton Lake State Wildlife Research Area
- Houghton Lake Flats North Flooding State Wildlife Management Area
- Houghton Lake Flats South Flooding State Wildlife Management Area
- Marsh Creek / Beaver Lake Flooding State Wildlife Management Area
- Robinson Creek Flooding State Wildlife Management Area

Saginaw County:

- Crow Island State Game Area (southern portion; majority)
- Gratiot-Saginaw State Game Area (eastern portion)
- Shiawassee River State Game Area

St. Clair County:

- Port Huron State Game Area
- St. Clair Flats State Wildlife Area (includes Harsens Island)
- St. Clair Township State Game Area
- St. Johns Marsh State Wildlife Area

St. Joseph County:

- Fabius Lake State Game Area

State Game and Wildlife Areas by County

St. Joseph County (Cont.):

- Leidy Lake State Game Area
- Spring Creek State Game Area
- Three Rivers State Game Area (eastern portion)

Sanilac County:

- Cass City State Game Area (eastern portion)
- Flynn State Game Area
- Minden City State Game Area
- Sandusky State Game Area
- Sanilac State Game Area

Schoolcraft County:

- Bullock Ranch State Wildlife Management Area
- Little Fox River Flooding / Stanley Lake Flooding State Wildlife Management Area

Shiawassee County:

- Rose Lake State Wildlife Area (eastern portion)

Tuscola County:

- Almer Township State Game Area
- Cass City State Game Area (western portion; majority)
- Clark Lake State Game Area
- Columbia Township State Game Area
- Deford State Game Area
- Denmark Township State Game Area
- Elmwood Township State Game Area
- Fish Point State Wildlife Area
- Gagetown State Game Area (southern portion; majority)
- Murphy Lake State Game Area
- Quanicassee State Wildlife Area (eastern portion)
- Tuscola State Game Area
- Vassar State Game Area

Van Buren County:

- Cornish State Game Area
- Fuller Woods State Game Area
- Keeler State Game Area

Washtenaw County:

- Chelsea State Game Area
- Goose Lake State Game Area
- Sharonville State Game Area (east portion)
- Waterloo Game Unit (east portion) of Waterloo State Recreation Area
- Unadilla State Wildlife Area (southern/southwestern portion)

State Game and Wildlife Areas by County

Wayne County:

- Brownstown Prairie State Wildlife Area
- Pointe Mouillee State Game Area

Michigan State Parks System

State Parks (71)

Algonac SP
Aloha SP
Baraga SP
Belle Isle Park
Bewabic SP
Brimley SP
Burt Lake SP
Charters Traverse City SP
Cheboygan SP
Clear Lake SP
Coldwater SP
Craig Lake SP
Dodge 4 SP
Duck Lake SP
Fisherman's Island SP
Grand Haven SP
Grand Mere SP
Harrisville SP
Hartwick Pines SP
Hayes SP
Hoeft SP
Hoffmaster SP
Holland SP
Indian Lake SP
Interlochen SP
Lake Gogebic SP
Lakeport SP
Laughing Whitefish Falls SP
Leelanau SP
Ludington SP
Maybury SP
McLain SP
Mears SP
Meridian Baseline SP
Milliken SP & Harbor
Mitchell SP
Muskallonge Lake SP
Muskegon SP
Negwegon SP
Newaygo SP
North Higgins Lake SP
Old Mission Peninsula SP
Onaway SP
Orchard Beach SP
Otsego Lake SP
Palms Book SP
Petoskey SP
Porcupine Mountains Wilderness SP
Port Crescent SP
Sanilac Petroglyphs SP
Saugatuck Dunes SP
Seven Lakes SP
Silver Lake SP
Sleeper SP
Sleepy Hollow SP

State Parks - Cont. (71)

South Higgins Lake SP
Sterling SP
Straits SP
Sturgeon Point SP
Tahquamenon Falls SP
Tawas Point SP
Thompson's Harbor SP
Twin Lakes SP
Van Buren SP
Van Riper SP
Warren Dunes SP
Warren Woods SP
Wells SP
Wilderness SP
Wilson SP
Young SP

Historic State Parks (3)

Cambridge Junction HSP
Fayette HSP
Fort Wilkins HSP

State Recreation Areas (23)

Bald Mountain RA
Bass River RA
Bay City RA
Brighton RA
Fort Custer RA
Highland RA
Holly RA
Ionia RA
Island Lake RA
Lake Hudson RA
Lime Island RA
Menominee River RA
Metamora-Hadley RA
Ortonville RA
Pinckney RA
Pontiac Lake RA
Proud Lake RA
Rifle River RA
Rockport RA
Tippy Dam RA
Waterloo RA
Wetzel RA
Yankee Springs RA

State Scenic Sites (3)

Agate Falls SS
Bond Falls SS
Wagner Falls SS

State Linear Parks (5)

Hart-Montague Trail SP
Kal-Haven Trail SP
Lakelands Trail SP
Van Buren Trail SP
Fred Meijer White Pine Trail SP

Mackinac State Historic Parks (MSHP) Properties and Resources

I. MACKINAC ISLAND STATE PARK

- National Historic Landmark
- Originally Mackinac National Park (1875-1895)
- Michigan's first state park – 1895
- 1,773 acres, which is 82% of Mackinac Island
- Open all the time - 24 hours a day, 365 days a year
- Visitation - Serves 800,000 annual visitors to Mackinac Island, plus daily use by the 500 local residents
- Programs and Responsibilities:
 1. Care for historic buildings on state land
 - a. **Fort Mackinac 1780-1895**
 - Contains oldest buildings in Michigan
 - Outstanding collection of early Michigan artifacts and documents
 - Completely restored since 1958
 - Museum displays, A/V program, and living history programs
 - Major tourist attraction, with annual paid visitation of 210,000
 - b. Other historic buildings located outside Fort Mackinac, including: Biddle House, McGulpin House, Geary House, Fort Holmes, Beaumont Memorial, The Richard and Jane Manoogian Mackinac Art Museum at the Indian Dormitory, Mission Church and Mission House, Island House, Life Saving Station, Governor's Summer Residence
 - c. Supervision and regulation of privately owned historic houses on state-leased land
 2. Operate Visitor's Center and provide public restrooms for park visitors
 3. Care for natural environment containing forest and wetlands
 4. Maintain 70.5 miles of signed and interpreted roads and trails
 5. Maintain M-185 in cooperation with Michigan Department of Transportation
 6. Provide dock for major construction activities
 7. Operate and maintain year-round airport with a lighted 3,500 foot runway, parallel taxiway, and staffed terminal
 8. Provide land for Island infrastructure systems: water, wastewater, landfill, fire station, and cemeteries

9. Provide security and public safety:
 - a. Promulgate and enforce state park rules
 - b. Provide police protection through arrangements with state police, county sheriff, city police, and conservation officers
 - c. Assist with fire protection through contract with local municipality, by plowing all streets in the winter, providing two fire engines, and providing land for fire station
10. License commercial horse-drawn transportation, including fifty-five sightseeing carriages, seventeen taxicabs, eighteen drive-yourself carriages, and twenty-one livery carriages
11. Acquire (by gift or purchase) additional lands and historic properties, conservation and historic easements, and development rights
12. Lease lands for recreational activities, including golf courses and Great Turtle Park
11. Grant franchises for electricity and cable television
12. Maintain Executive summer residence
13. Maintain and operate Mackinac Island Scout Service Camp, serving 700 boy and girl scouts annually
14. Provide professional historical expertise to local community

II. MICHILIMACKINAC STATE PARK

- Located in Mackinaw City
- Michigan's second state park
- Thirty-seven acres with 2,100 feet of Great Lakes shoreline
- Programs and Responsibilities:
 1. Reconstruct **Colonial Michilimackinac**
 - Site of eighteenth century fur trading community (1715-1780)
 - Major archaeological excavation (1959-present) with over one million artifacts recovered
 - Reconstructed palisades and twelve structures
 - Museum displays, A/V program, living history programs
 - Major tourist attraction, with annual visitation of 100,000
 - Museum open May 15-October 15
 - National Historic Landmark
 2. Restore **Old Mackinac Point Lighthouse**
 - Operated as a lighthouse from 1892-1957
 - Includes fog signal building, barn, and associated grounds
 - Ongoing restoration, with museum displays, live interpretation and tours of the light tower
 - Major tourist attraction, with annual visitation of 30,000
 3. Operate Visitor's Center and provide public restrooms for park visitors
 4. Provide picnic and bridge viewing areas

III. HISTORIC MILL CREEK STATE PARK

- National Register Historic Site
- Site of **Historic Mill Creek Discovery Park**
- Located four miles east of Mackinaw City on U.S. 23
- 625 acres with 3,250 feet of Great Lakes shoreline
- Open May 15-October 15, with an annual paid visitation of 40,000
- Programs and Responsibilities:
 1. Site of first industrial site in Northern Michigan (1790-1839)
 2. Major archaeological site with ongoing excavations
 3. Reconstruction and interpretation of Historic Mill Creek Discovery Park: mill dam, sawmill, British workshop, millwright's house, three miles of nature trails with interpretive signs, high ropes course activities integrated with natural history interpretation program
 4. Visitor's Center and concession building with museum exhibits and A/V program
 5. Maintenance of natural environment, including a prime trout stream and beaver pond

IV. ADMINISTRATIVE AND RESEARCH OFFICE

- Summer administrative office on Mackinac Island; Winter administrative office in Mackinaw City
- Historical research facility (Petersen Center) in Mackinaw City
 - a. 80,000 books, plans, maps, archival documents, photographs and slides
 - b. Archaeological laboratory and artifact storage area with over 1,000,000 artifacts in Mackinaw City
- Historic object storage area (Heritage Center) on Mackinac Island includes original furnishings, decorative arts, tools, firearms, photographs, glass plate negatives, and surface-find artifacts

Michigan State Harbors

<u>Site ID</u>	<u>Site Name</u>
A-06-201	Au Gres
A-16-202	Straits
A-17-201	Whitefish Point
A-17-204	De Tour
A-17-205	Lime Island
A-21-201	Fayette - Snail Shell
A-32-203	Port Austin
A-35-201	East Tawas
A-42-201	Eagle Harbor
A-42-202	Copper Harbor
A-42-203	Lac La Belle
A-48-201	Little Lake
A-49-204	Mackinac Island
A-55-201	Cedar River
A-71-201	Hammond Bay
A-71-203	Presque Isle
A-76-202	Lexington
A-82-201	Grayhaven
A-82-203	Milliken

Michigan Grant-In-Aid Harbors

<u>County</u>	<u>Site Name</u>
Alcona	Harrisville Harbor
Alger	Burt Twp. - Grand Marais Marina
Alger	Munising Bayshore Marina
Alpena	Alpena Municipal Marina
Antrim	Elk Rapids - Edward C. Grace
Baraga	Baraga Municipal Marina
Baraga	L'anse Municipal Marina
Bay	Bay City Liberty Harbor
Benzie	Frankfort Municipal Marina
Berrien	New Buffalo Municipal Marina
Berrien	St. Joseph - West Basin Marina
Charlevoix	Boyne City - Grant Moore Marina
Charlevoix	Charlevoix Municipal Marina
Charlevoix	East Jordan City Marina
Charlevoix	St. James Twp. - Beaver Island Marina
Cheboygan	Cheboygan County Marina
Cheboygan	Cheboygan City Municipal Marina
Cheboygan	Mackinaw City Municipal Marina
Chippewa	Sault Ste. Marie - Kemp Marina
Chippewa	Sault Ste. Marie - Charles T. Harvey Marina
Delta	Escanaba Municipal Marina
Delta	Gladstone Municipal Marina
Emmet	Harbor Springs Municipal Marina
Emmet	Petoskey City Marina

Michigan Grant-In-Aid Harbors

<u>County</u>	<u>Site Name</u>
Grand Traverse	Traverse City - Duncan L. Clinch Marina
Houghton	Grand Traverse Bay Marina
Houghton	Houghton County Marina
Houghton	Houghton City Marina
Huron	Caseville Municipal Harbor
Huron	Harbor Beach Municipal Marina
Huron	Sebewaing Municipal Marina
Leelanau	Elmwood Twp. - Grelickville Marina
Leelanau	Leland Twp. Marina
Leelanau	Northport - G. Marsten Dame Marina
Leelanau	Suttons Bay Marina
Mackinac	Bois Blanc Island Marina
Mackinac	Clark Twp. - Cedarville Harbor
Mackinac	Clark Twp. - Hessel Marina
Mackinac	Garfield Twp. - Naubinway Marina
Mackinac	St. Ignace Municipal Marina
Macomb	Lake St. Clair Metropark Marina
Manistee	Arcadia Harbor
Manistee	Manistee Municipal Marina
Marquette	Big Bay Harbor
Marquette	Marquette - Cinder Pond Marina
Marquette	Marquette - Presque Isle Marina
Mason	Ludington Municipal Marina
Menominee	Menominee Marina

Michigan Grant-In-Aid Harbors

<u>County</u>	<u>Site Name</u>
Muskegon	Muskegon - Hartshorn Marina
Muskegon	Whitehall - White Lake Municipal Marina
Oceana	Pentwater Municipal Marina
Ontonagon	Ontonagon Municipal Marina
Ottawa	Grand Haven Marina
Presque Isle	Rogers City Marina
Sanilac	Port Sanilac Municipal Harbor
Schoolcraft	Manistique Municipal Marina
St. Clair	Port Huron - River St. Marina
St. Clair	Port Huron - Fort St. Marina
St. Clair	St. Clair - Charles F. Moore
VanBuren	South Haven Municipal Marina
Wayne	Elizabeth Park Marina
Wayne	Erma Henderson Marina
Wayne	Lake Erie Metropark Marina

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-01-002	Killmaster	Alcona
A-01-003	East Bay	Alcona
A-01-004	Harrisville State Park	Alcona
A-01-007	Harrisville	Alcona
A-01-009	South Bay	Alcona
A-02-001	Deer Lake	Alger
A-02-003	Sand Lake	Alger
A-02-009	Nawakwa Lake	Alger
A-02-010	Whitefish River	Alger
A-03-001	Big Lake	Allegan
A-03-002	Hacklander	Allegan
A-03-003	Duck Lake	Allegan
A-03-004	Green Lake	Allegan
A-03-005	Selkirk	Allegan
A-03-006	Pike Lake	Allegan
A-03-007	Miner Lake	Allegan
A-03-008	Swan Lake	Allegan
A-03-009	Lake Sixteen	Allegan
A-03-010	Sheffer Lake	Allegan
A-03-012	Base Line Lake	Allegan
A-03-013	Allegan Dam - East	Allegan
A-03-024	Pine Creek Impoundment	Allegan
A-03-025	Base Line Lake - South	Allegan
A-03-026	Eagle Lake	Allegan
A-03-028	Scott Creek	Allegan
A-04-001	Fletcher Pond	Alpena
A-04-002	Thunder Bay River	Alpena
A-04-003	Seven Mile Pond	Alpena
A-04-004	Devil's River	Alpena
A-04-008	Rockport	Alpena
A-04-010	Snug Harbor	Alpena
A-04-011	Devil's Lake	Alpena
A-04-014	Losinski Road	Alpena
A-05-001	Ellsworth Lake	Antrim
A-05-002	Clam Lake	Antrim
A-05-003	Deep Water Point	Antrim
A-05-006	Central Lake	Antrim
A-05-007	Intermediate River	Antrim
A-05-008	Lake Bellaire	Antrim
A-05-009	Openo Park	Antrim

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-05-010	St. Clair Lake	Antrim
A-05-011	Green Lake	Antrim
A-05-012	Henry Lake	Antrim
A-05-013	Cedar River	Antrim
A-05-014	Cedar River #2	Antrim
A-05-015	Cedar River #3	Antrim
A-05-016	Cedar River #4	Antrim
A-05-017	Warner Creek	Antrim
A-05-018	Jordan River	Antrim
A-05-019	Lake of the Woods	Antrim
A-05-020	East Port	Antrim
A-05-021	Webster Bridge	Antrim
A-05-022	Wilson Lake	Antrim
A-05-023	Torch River Bridge	Antrim
A-05-024	Torch Lake (West side)	Antrim
A-05-025	Chestonia Bridge	Antrim
A-05-026	Elk Lake	Antrim
A-05-027	Lake Bellaire	Antrim
A-05-028	Steiner Road	Antrim
A-05-030	Birch Lake	Antrim
A-05-031	Fisherman's Paradise	Antrim
A-06-003	Wigwam Bay	Arenac
A-06-004	Omer	Arenac
A-06-005	Pine River Mouth	Arenac
A-06-006	Moffatt Bridge	Arenac
A-06-101	Singing Bridge	Arenac
A-07-001	Vermilac Lake	Baraga
A-07-003	Ned Lake	Baraga
A-07-004	Ruth Lake	Baraga
A-07-006	East Branch Falls	Baraga
A-07-007	Silver River	Baraga
A-07-008	Rocky Beach	Baraga
A-07-010	Sturgeon River	Baraga
A-07-011	De Hoss Creek	Baraga
A-07-012	Keewaydin Lake	Baraga
A-07-015	Parent Lake	Baraga
A-07-016	Ole Nelson Lake	Baraga
A-07-017	Roland Lake	Baraga
A-07-018	Six Mile Creek	Baraga
A-07-024	Baraga State Park	Baraga

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-07-025	Silver River Falls	Baraga
A-08-001	Middle Lake	Barry
A-08-002	Jordan Lake	Barry
A-08-003	Fine Lake	Barry
A-08-004	Payne Lake	Barry
A-08-005	Irving Road	Barry
A-08-006	Cloverdale	Barry
A-08-007	Clear Lake	Barry
A-08-008	Carter Lake	Barry
A-08-009	Duncan Lake	Barry
A-08-010	Long Lake (Dowling)	Barry
A-08-011	Bristol Lake	Barry
A-08-012	Leach Lake	Barry
A-08-013	Thornapple Lake	Barry
A-08-014	Yankee Springs R.A.	Barry
A-08-015	Fish Lake	Barry
A-08-017	Chief Noonday Lake	Barry
A-08-018	Deep Lake	Barry
A-08-019	Hall Lake	Barry
A-08-020	Long Lake	Barry
A-08-021	McDonald Lake	Barry
A-08-022	Williams Lake	Barry
A-08-030	Yankee Springs R.A.	Barry
A-08-032	Airport Road	Barry
A-08-034	Fair Lake	Barry
A-09-002	Kawkawlin River	Bay
A-09-004	Coggins Road	Bay
A-09-008	Saginaw River Mouth	Bay
A-10-002	Platte Lake	Benzie
A-10-003	Goose Road	Benzie
A-10-004	Upper Herring Lake	Benzie
A-10-005	Shorter Lake	Benzie
A-10-006	Crystal Lake	Benzie
A-10-007	Brooks Lake	Benzie
A-10-009	River Road	Benzie
A-10-010	Case Bridge	Benzie
A-10-011	Turtle Lake	Benzie
A-10-013	Lower Herring Lake	Benzie
A-10-014	Hayes Bridge	Benzie
A-10-015	Davis Lake	Benzie

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-10-016	Stevens Lake	Benzie
A-10-017	Herendeene Lake	Benzie
A-10-018	Homestead Pond	Benzie
A-10-020	Little Platte Lake	Benzie
A-10-101	Grace Road	Benzie
A-10-102	Homstead Dam	Benzie
A-10-103	U.S. 31	Benzie
A-11-001	Paw Paw Lake - West	Berrien
A-11-002	Paw Paw Lake - East	Berrien
A-11-003	Galien River	Berrien
A-11-004	Black Lake	Berrien
A-11-008	Buchanan	Berrien
A-11-012	Benton Harbor	Berrien
A-11-013	Jasper Dairy Road	Berrien
A-11-015	Grand Mere State Park	Berrien
A-12-001	Randall Lake	Branch
A-12-002	Coldwater Lake	Branch
A-12-003	Marble Lake	Branch
A-12-004	Lake of the Woods	Branch
A-12-006	Loon Lake Channel	Branch
A-12-007	Cary Lake	Branch
A-12-008	Lake George	Branch
A-12-009	Matteson Lake	Branch
A-12-010	Kenyon Lake	Branch
A-12-011	Lake Lavine	Branch
A-12-012	Middle Lake	Branch
A-12-013	Union Lake	Branch
A-12-014	Silver Lake	Branch
A-12-015	Craig Lake	Branch
A-12-017	Oliverda Lake	Branch
A-13-001	Nottawa Lake	Calhoun
A-13-002	Goguac Lake	Calhoun
A-13-004	Lanes Lake	Calhoun
A-13-005	Duck Lake	Calhoun
A-13-006	Warner Lake	Calhoun
A-13-007	Upper Brace Lake	Calhoun
A-13-008	Lee Lake	Calhoun
A-13-009	Prairie Lake	Calhoun
A-13-010	Winnipeg Lake	Calhoun
A-13-011	Gordon Lake	Calhoun

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-13-012	Wabascon Lake	Calhoun
A-13-019	Ackley Lake	Calhoun
A-14-001	Fish Lake	Cass
A-14-002	Dowagiac River	Cass
A-14-004	Magician Lake	Cass
A-14-005	Paradise Lake	Cass
A-14-006	Diamond Lake	Cass
A-14-007	Hemlock Lake	Cass
A-14-008	Donnell Lake	Cass
A-14-010	Stone Lake	Cass
A-14-011	Driskels Lake	Cass
A-14-012	Juno Lake	Cass
A-14-013	Harwood Lake	Cass
A-14-014	Corey Lake	Cass
A-14-015	Bair Lake	Cass
A-14-016	Chain Lake	Cass
A-14-017	Long Lake	Cass
A-14-023	Dewey Lake	Cass
A-14-024	Christiann Creek	Cass
A-15-001	Susan Lake	Charlevoix
A-15-002	Six Mile Lake	Charlevoix
A-15-003	Boyne River	Charlevoix
A-15-004	Boyne Falls Mill Pond	Charlevoix
A-15-005	Dutchmans Bay	Charlevoix
A-15-006	West Twin Lake	Charlevoix
A-15-007	Alba Road	Charlevoix
A-15-008	Thumb Lake	Charlevoix
A-15-010	Ironton	Charlevoix
A-15-011	Deer Lake	Charlevoix
A-15-012	Rogers Road Bridge	Charlevoix
A-15-014	Adams Lake	Charlevoix
A-15-015	Nowland Lake	Charlevoix
A-15-016	Nine Mile Point	Charlevoix
A-15-017	Horton Creek	Charlevoix
A-15-020	Young State Park	Charlevoix
A-15-024	Whiting Co Park	Charlevoix
A-16-002	Mullett Lake Village	Cheboygan
A-16-003	Cochran Lake	Cheboygan
A-16-004	Jewell Road	Cheboygan
A-16-005	Munro Lake	Cheboygan

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-16-006	Silver Lake	Cheboygan
A-16-007	Douglas Lake	Cheboygan
A-16-008	Garfield Road	Cheboygan
A-16-009	The Forks	Cheboygan
A-16-010	Meadows	Cheboygan
A-16-011	Trowbridge Road	Cheboygan
A-16-013	Long Lake	Cheboygan
A-16-014	Lancaster Lake	Cheboygan
A-16-015	Douglas Lake	Cheboygan
A-16-016	Rondo	Cheboygan
A-16-017	Black River	Cheboygan
A-16-018	Sturgeon River	Cheboygan
A-16-020	Burt Lake	Cheboygan
A-16-024	Aloha State Park	Cheboygan
A-16-025	Burt Lake State Park	Cheboygan
A-16-026	Cheboygan State Park	Cheboygan
A-16-027	Cheboygan Dam	Cheboygan
A-17-001	Frenchman Lake	Chippewa
A-17-002	Old Eckerman Trout Pond	Chippewa
A-17-003	De Tour Village	Chippewa
A-17-004	De Tour Passage	Chippewa
A-17-005	Chub Creek	Chippewa
A-17-007	Waiska Bay	Chippewa
A-17-008	M-221 Bridge	Chippewa
A-17-009	Sugar Island	Chippewa
A-17-010	Caribou Lake	Chippewa
A-17-011	Tahquamenon Falls S.P.	Chippewa
A-17-018	Brimley State Park	Chippewa
A-17-020	Munuscong Lake	Chippewa
A-17-021	Neebish Island	Chippewa
A-17-026	Prentiss Bay	Chippewa
A-17-028	Tahquamenon Falls S.P.	Chippewa
A-17-030	Whitefish Point Harbor	Chippewa
A-17-031	Bay Mills	Chippewa
A-18-001	Long Lake	Clare
A-18-002	Five Lakes	Clare
A-18-003	Cranberry Lake	Clare
A-18-004	Windover Lake	Clare
A-18-005	Crooked Lake	Clare
A-18-006	Little Long Lake	Clare

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-18-007	Perch Lake	Clare
A-18-009	Clam River	Clare
A-18-010	Newton Creek	Clare
A-18-011	Lake George	Clare
A-18-012	Nestor Lake	Clare
A-18-013	Lily Lake	Clare
A-18-014	Muskegon River	Clare
A-18-018	Arnold Lake	Clare
A-19-001	French Road	Clinton
A-19-002	Looking Glass River	Clinton
A-19-003	Muskrat Lake	Clinton
A-19-005	Sleepy Hollow State Park	Clinton
A-20-001	Sheep Pasture	Crawford
A-20-005	Manistee River	Crawford
A-20-006	Horseshoe Lake	Crawford
A-20-007	Bluegill Lake	Crawford
A-20-008	North Branch Au Sable	Crawford
A-20-009	Meads Landing	Crawford
A-20-011	Stephans Bridge	Crawford
A-20-012	South Branch Au Sable	Crawford
A-20-014	McMasters Bridge	Crawford
A-20-015	Connors Flats	Crawford
A-20-016	Steckert Bridge	Crawford
A-20-017	Guthrie Lake	Crawford
A-20-018	Section One Lake	Crawford
A-20-021	K. P. Lake	Crawford
A-20-022	Kolka Creek	Crawford
A-20-025	Smith Bridge	Crawford
A-20-027	Glory Lake	Crawford
A-20-029	Bright Lake	Crawford
A-20-033	North Higgins Lake S.P.	Crawford
A-21-001	Ford River Mouth	Delta
A-21-002	Burnt Camp	Delta
A-21-003	Stonington	Delta
A-21-005	Nahma	Delta
A-21-006	South Lake	Delta
A-21-007	Garden Bay	Delta
A-21-008	Escanaba River	Delta
A-21-009	West Branch Days River	Delta
A-21-011	Portage Point West	Delta

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-21-012	Ford River	Delta
A-21-013	Rapid River Northwest	Delta
A-21-014	Reno Creek	Delta
A-21-015	Rapid River East	Delta
A-21-016	Portage Bay	Delta
A-21-017	Kipling	Delta
A-21-019	Dam 3 Impoundment	Delta
A-21-020	Little Fish Dam River	Delta
A-21-021	Rapid River Mouth	Delta
A-21-023	Fayette State Park	Delta
A-21-026	Little Bay De Noc	Delta
A-22-001	Mary Lake	Dickinson
A-22-002	Pickerel Lake	Dickinson
A-22-003	Pine Creek	Dickinson
A-22-004	Crescent Pond	Dickinson
A-22-005	Hamilton Lake	Dickinson
A-22-006	Dam #3	Dickinson
A-22-007	Bass Lake	Dickinson
A-22-008	Norway Reservoir	Dickinson
A-22-009	Warren Pond	Dickinson
A-22-010	Silver Lake	Dickinson
A-22-011	Bergen Backwater	Dickinson
A-22-012	Benton Lake	Dickinson
A-22-013	Rock Lake	Dickinson
A-22-014	Solberg Lake	Dickinson
A-22-015	Edey Lake	Dickinson
A-22-016	Loretto	Dickinson
A-22-018	Six Mile Lake	Dickinson
A-22-019	Ford River	Dickinson
A-22-020	Sturgeon River	Dickinson
A-22-022	Pond #2	Dickinson
A-22-028	Bodelin Access Site	Dickinson
A-22-031	West Branch Sturgeon R.	Dickinson
A-22-032	South Lake	Dickinson
A-23-005	Smithville Dam	Eaton
A-23-006	Willow Highway	Eaton
A-23-008	Narrow Lake	Eaton
A-24-001	Lake Paradise	Emmet
A-24-002	Round Lake	Emmet
A-24-003	Pickerel Lake	Emmet

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-24-005	Crooked Lake	Emmet
A-24-006	Wilderness State Park	Emmet
A-24-010	Wilderness State Park	Emmet
A-25-001	Lobdell Lake	Genesee
A-25-002	Lake Fenton	Genesee
A-25-003	Lake Ponemah	Genesee
A-26-001	Pratt Lake	Gladwin
A-26-002	North Branch Cedar River	Gladwin
A-26-003	Wiggins Lake	Gladwin
A-26-004	Lake Four	Gladwin
A-26-005	Lake Lancer	Gladwin
A-26-006	Wixom Lake - East	Gladwin
A-26-007	Cedar River	Gladwin
A-26-008	Wixom Lake - West	Gladwin
A-26-009	Secord Lake - South	Gladwin
A-26-011	Secord Lake - North	Gladwin
A-26-013	Ross Lake	Gladwin
A-27-001	Cisco Lake	Gogebic
A-27-002	Dinner Lake	Gogebic
A-27-003	Duck Lake	Gogebic
A-27-004	Thousand Island Lake	Gogebic
A-27-005	Lac Vieux Desert	Gogebic
A-27-006	Chaney Lake	Gogebic
A-27-007	Middle Brach Ontonagon River	Gogebic
A-27-008	Spring Creek	Gogebic
A-27-010	Clearwater Lake	Gogebic
A-27-011	Mud Creek Barrier Dam	Gogebic
A-27-012	Black River Lake	Gogebic
A-27-013	Lake Gogebic State Park	Gogebic
A-27-014	Lake Gogebic - East Side	Gogebic
A-27-015	Oman Creek	Gogebic
A-28-002	Bowers Harbor	Grand Traverse
A-28-004	Spider Lake	Grand Traverse
A-28-008	River Road	Grand Traverse
A-28-010	Fish Lake	Grand Traverse
A-28-011	Silver Lake	Grand Traverse
A-28-012	Mason Creek	Grand Traverse
A-28-013	Ellis Lake	Grand Traverse
A-28-014	Cedar Lake	Grand Traverse
A-28-016	Lake Skegemog	Grand Traverse

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-28-018	Bass Lake - North	Grand Traverse
A-28-020	Green Lake	Grand Traverse
A-28-021	Cedar Hedge Lake Outlet	Grand Traverse
A-28-022	Cedar Hedge Lake	Grand Traverse
A-28-023	Bass Lake - South	Grand Traverse
A-28-024	Arbutus Lake #4	Grand Traverse
A-28-030	Interlochen State Park - Day Use	Grand Traverse
A-28-031	Interlochen State Park - Green Lake	Grand Traverse
A-28-033	East Arm	Grand Traverse
A-28-034	Interlochen State Park - Campground	Grand Traverse
A-29-001	Maple Road	Gratiot
A-30-001	Hemlock Lake	Hillsdale
A-30-002	Cub Lake	Hillsdale
A-30-003	Bear Lake	Hillsdale
A-30-004	Bird Lake	Hillsdale
A-30-005	Long Lake	Hillsdale
A-30-006	Round Lake	Hillsdale
A-30-007	Little Long Lake	Hillsdale
A-30-009	Lake Diane	Hillsdale
A-31-001	Otter Lake	Houghton
A-31-002	Clear Lake	Houghton
A-31-004	Bootjack	Houghton
A-31-005	Little Rice Lake	Houghton
A-31-006	Prickett Dam Backwaters	Houghton
A-31-007	Torch Bay	Houghton
A-31-008	Pilgrim River	Houghton
A-31-009	Sandy Lake	Houghton
A-31-010	Mud Lake	Houghton
A-31-013	Rice Lake	Houghton
A-31-014	Pike Lake	Houghton
A-31-015	Boston Pond	Houghton
A-31-016	Hungarian Falls Scenic	Houghton
A-31-018	Twin Lakes State Park	Houghton
A-31-025	Lily Pond Ramp	Houghton
A-31-030	South Portage Entry	Houghton
A-32-001	Fin and Feather	Huron
A-32-004	Filion Road	Huron
A-32-005	Eagle Bay	Huron
A-32-007	Bay Port	Huron
A-32-008	Sumac Island	Huron

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-32-009	Grindstone City	Huron
A-32-012	Port Austin	Huron
A-33-004	Gale Road	Ingham
A-34-001	Morrison Lake	Ionia
A-34-002	Long Lake	Ionia
A-34-003	Muir	Ionia
A-34-010	Woodard Lake	Ionia
A-34-011	Saranac	Ionia
A-34-013	Webber Impoundment	Ionia
A-34-014	Sessions Lake	Ionia
A-34-016	White's Bridge	Ionia
A-34-101	Webber Dam	Ionia
A-35-001	Au Sable River Mouth	Iosco
A-35-002	Chain Lake	Iosco
A-35-006	Long Lake	Iosco
A-35-007	Floyd Lake	Iosco
A-35-008	Cedar Lake	Iosco
A-35-009	Tawas Lake	Iosco
A-35-010	Londo Lake	Iosco
A-35-013	East Tawas Launch Ramp	Iosco
A-35-101	Foote Dam	Iosco
A-36-001	Third Fortune Lake	Iron
A-36-002	Tamarack Lake	Iron
A-36-004	Stanley Lake	Iron
A-36-005	Deadman's Lake	Iron
A-36-006	Emily Lake	Iron
A-36-007	Holmes Lake	Iron
A-36-008	Paint River	Iron
A-36-010	Scott Lake	Iron
A-36-011	Net River	Iron
A-36-012	Fire Lake	Iron
A-36-013	Indian Lake	Iron
A-36-014	Cable Lake	Iron
A-36-015	Camp Lake	Iron
A-36-017	Swan Lake	Iron
A-36-018	Lake Mary	Iron
A-36-019	Long Lake	Iron
A-36-020	Erickson's Landing	Iron
A-36-022	Carney Dam	Iron
A-36-023	The Wide Waters	Iron

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-36-024	Camp 6 Creek Pond	Iron
A-36-025	Snake Rapids	Iron
A-36-026	Mitchell Lake	Iron
A-36-028	Bewabic State Park	Iron
A-36-030	Snipe Lake	Iron
A-36-031	Paint River Bridge	Iron
A-36-101	Fortune Lake Mine Pit	Iron
A-37-001	Littlefield Lake	Isabella
A-37-002	Pine River	Isabella
A-37-003	Stevenson Lake	Isabella
A-38-001	Center Lake	Jackson
A-38-002	Crispell Lake	Jackson
A-38-003	Portage Lake	Jackson
A-38-004	Maple Grove Bridge	Jackson
A-38-005	Gilletts Lake	Jackson
A-38-006	Trestle Bridge	Jackson
A-38-007	Wolf Lake	Jackson
A-38-008	Pine Hill Lake	Jackson
A-38-009	Tompkins Bridge	Jackson
A-39-001	Barton Lake	Kalamazoo
A-39-002	Sherman Lake	Kalamazoo
A-39-003	Long Lake	Kalamazoo
A-39-005	Morrow Pond	Kalamazoo
A-39-006	Eagle Lake	Kalamazoo
A-39-007	Le Fever Lake	Kalamazoo
A-39-008	Paw Paw Lake	Kalamazoo
A-39-009	Rupert Lake	Kalamazoo
A-39-010	Crooked Lake	Kalamazoo
A-39-011	Sugar Loaf Lake	Kalamazoo
A-39-012	Comstock	Kalamazoo
A-39-014	Austin Lake	Kalamazoo
A-39-017	Whitford - Lawler	Kalamazoo
A-39-018	Eagle Lake	Kalamazoo
A-39-019	Kalamazoo River	Kalamazoo
A-40-001	East Lake	Kalkaska
A-40-002	Big Blue Lake	Kalkaska
A-40-004	Rapid River North	Kalkaska
A-40-005	Starvation Lake	Kalkaska
A-40-006	Bear Lake	Kalkaska
A-40-007	Freedom Park	Kalkaska

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-40-008	Crawford Lake	Kalkaska
A-40-009	Torch River	Kalkaska
A-40-010	Cub Lake	Kalkaska
A-40-011	Indian Lake	Kalkaska
A-40-012	Rapid River West	Kalkaska
A-40-013	Maple Creek	Kalkaska
A-40-015	Bass Lake	Kalkaska
A-40-016	Big Twin Lake	Kalkaska
A-40-017	Kettle Lake	Kalkaska
A-40-018	Rainbow Jim Bridge	Kalkaska
A-40-021	Three Mile Bend	Kalkaska
A-40-022	Manistee River	Kalkaska
A-40-023	Rapid River South	Kalkaska
A-40-025	Sand Banks	Kalkaska
A-40-026	Cranberry Lake	Kalkaska
A-40-027	Manistee River - Hanson	Kalkaska
A-41-001	Murray Lake	Kent
A-41-002	Campau Lake	Kent
A-41-003	Bass Lake	Kent
A-41-004	Camp Lake	Kent
A-41-005	Big Pine Island Lake	Kent
A-41-006	Campbell Lake	Kent
A-41-007	Ada	Kent
A-41-008	Lincoln Lake	Kent
A-41-009	Lime Lake	Kent
A-41-011	Rogue River	Kent
A-41-014	Rogue River Mouth	Kent
A-41-015	Pratt Lake	Kent
A-41-016	Knapp Street Bridge	Kent
A-41-019	Lowell	Kent
A-41-101	Friske Dr.	Kent
A-41-102	Summit Avenue	Kent
A-42-001	Lake Medora	Keweenaw
A-42-002	Gratiot Lake	Keweenaw
A-42-003	Lake Bailey	Keweenaw
A-42-004	Eliza Lake	Keweenaw
A-42-005	Thayers Lake	Keweenaw
A-42-006	Garden City Pond	Keweenaw
A-42-007	Lac La Belle Dock	Keweenaw
A-42-008	Fort Wilkins State Park	Keweenaw

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-42-009	Copper Harbor	Keweenaw
A-42-010	Eagle Harbor	Keweenaw
A-42-011	Tamarack Waterworks	Keweenaw
A-43-001	Wagon Wheel	Lake
A-43-002	Sulak	Lake
A-43-003	Roller Bridge	Lake
A-43-005	Fox Bridge	Lake
A-43-009	Edgetts Bridge	Lake
A-43-015	Weavers	Lake
A-43-017	Idlewild Lake	Lake
A-43-018	Little Idlewild Lake	Lake
A-43-019	Foreman Lakes	Lake
A-43-020	Blood Creek	Lake
A-43-021	Middle Branch Pere Marquette	Lake
A-43-022	Big Star Lake	Lake
A-43-023	PM River Undeveloped	Lake
A-43-024	North Lake	Lake
A-43-025	Skookum - South Bank	Lake
A-43-026	Mench Lake	Lake
A-43-027	Wolf Lake	Lake
A-43-028	Rockey	Lake
A-43-029	Harper Lake	Lake
A-43-030	Switzer Lake	Lake
A-43-032	M-37 Bridge	Lake
A-43-033	The Forks	Lake
A-43-034	Indian Bridge	Lake
A-43-035	Spencer Bridge	Lake
A-43-036	Reed Lake	Lake
A-43-037	Paradise Lake	Lake
A-43-039	Baldwin Hatchery	Lake
A-43-045	Skookum - North Bank	Lake
A-43-046	Big Bass Lake	Lake
A-44-001	Nepessing Lake	Lapeer
A-44-002	Minnewanna Lake	Lapeer
A-44-003	Big Fish Lake	Lapeer
A-44-004	Davidson Lake	Lapeer
A-44-008	Watts Lake	Lapeer
A-45-001	Lake Leelanau - West	Leelanau
A-45-002	Lake Leelanau - East	Leelanau
A-45-003	Cook Lake	Leelanau

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-45-004	Cedar Lake	Leelanau
A-45-007	Glen Lake	Leelanau
A-45-008	Lime Lake	Leelanau
A-45-009	Carp River	Leelanau
A-45-010	Armstrong Lake	Leelanau
A-45-012	West Arm	Leelanau
A-45-013	The Narrows	Leelanau
A-46-001	Sand Lake	Lenawee
A-46-002	Allens Lake	Lenawee
A-46-003	Devils Lake	Lenawee
A-46-004	Wamplers Lake	Lenawee
A-46-005	Round Lake	Lenawee
A-46-008	Lake Hudson	Lenawee
A-47-001	Lake Chemung	Livingston
A-47-002	East Crooked Lake	Livingston
A-47-003	Woodland Lake	Livingston
A-47-004	Whitmore Lake	Livingston
A-47-007	Bishop Lake Campground	Livingston
A-47-008	Appleton Lake	Livingston
A-47-009	Chenango Lake	Livingston
A-47-010	Chilson Pond	Livingston
A-47-011	Hiland Lake	Livingston
A-47-012	Gosling Lake	Livingston
A-47-013	Murray Lake	Livingston
A-47-014	Reed Lake	Livingston
A-47-015	Island Lake R.A.	Livingston
A-47-016	Trout Lake	Livingston
A-48-001	Manistique Lake - Northside	Luce
A-48-002	Peanut Lake	Luce
A-48-003	Silver Creek Trout Pond	Luce
A-48-004	Kak's Lake	Luce
A-48-005	McPhee's Landing	Luce
A-48-006	Natalie	Luce
A-48-007	County Line	Luce
A-48-009	Twin Lake	Luce
A-48-014	East Lake	Luce
A-48-024	Muskallonge Lake S.P.	Luce
A-48-025	Third Creek Trout Pond	Luce
A-48-026	Brockies Trout Pond	Luce
A-48-027	Bucky's Trout Pond	Luce

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-48-028	Spring Creek Trout Pond	Luce
A-48-031	Little Lake Harbor	Luce
A-48-032	Dollarville Dam	Luce
A-48-033	Dollarville Dam	Luce
A-49-002	Curtis	Mackinac
A-49-003	Naubinway	Mackinac
A-49-004	Portage Creek	Mackinac
A-49-005	Dunkles Landing	Mackinac
A-49-006	Wolfe Bay	Mackinac
A-49-007	Millecoquins Lake	Mackinac
A-49-008	Cooks Bay	Mackinac
A-49-009	McAlpine Pond	Mackinac
A-49-010	Upper Millecoquin River	Mackinac
A-49-017	Brevort Lake	Mackinac
A-49-018	Marquette Island	Mackinac
A-49-023	Epoufette Bay	Mackinac
A-49-027	Pine River Mouth	Mackinac
A-50-001	Harley Ensign Memorial	Macomb
A-50-003	Selfridge	Macomb
A-50-006	Clinton River Cut-Off	Macomb
A-51-003	Bear Lake	Manistee
A-51-004	Nine Mile Bridge	Manistee
A-51-005	State Road	Manistee
A-51-006	Portage Lake	Manistee
A-51-008	Jopp Bridge	Manistee
A-51-010	Bar Lake	Manistee
A-51-013	Cranberry Lake	Manistee
A-51-015	Canfield Lake	Manistee
A-51-017	Kurick Road	Manistee
A-51-018	County Line Bridge	Manistee
A-51-019	Glovers Lake	Manistee
A-51-021	Potter Bridge	Manistee
A-51-022	Tippy Dam Campground	Manistee
A-51-023	Stronach	Manistee
A-51-025	Tippy Dam	Manistee
A-51-026	East Lake Village Park	Manistee
A-51-101	Little Manistee River	Manistee
A-52-001	Big Shag Lake	Marquette
A-52-002	Big Trout Lake	Marquette
A-52-003	Swanzy Lake	Marquette

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-52-009	Bass Lake	Marquette
A-52-011	Lake Michigamme	Marquette
A-52-012	Engman's Lake	Marquette
A-52-014	Cranberry Lake	Marquette
A-52-015	East Branch Escanaba River	Marquette
A-52-016	Lily Lake	Marquette
A-52-017	Branch Escanaba River	Marquette
A-52-018	Middle Branch Escanaba River	Marquette
A-52-019	Island Lake	Marquette
A-52-020	Wolf Lake	Marquette
A-52-021	Mangum	Marquette
A-52-022	Lake of the Plains	Marquette
A-52-023	Deer Creek	Marquette
A-52-024	Sporley Lake	Marquette
A-52-025	Michigamme River	Marquette
A-52-026	Chocolay River	Marquette
A-52-027	Johnson Lake	Marquette
A-52-028	Chocolay River - Nelson Creek	Marquette
A-52-029	Grant Lake	Marquette
A-52-030	Goose Lake	Marquette
A-52-031	Lake Angeline	Marquette
A-52-032	Twin Lake	Marquette
A-52-033	Arfelin Lake	Marquette
A-52-034	Granite Lake	Marquette
A-52-035	Chocolay River - Le Vasseur Creek	Marquette
A-52-036	Trout Falls Creek	Marquette
A-52-037	Witch Lake	Marquette
A-52-038	Little Shag Lake	Marquette
A-52-039	Helen Lake	Marquette
A-52-041	Dead River Basin - North	Marquette
A-52-042	Hoist Basin	Marquette
A-52-043	Sawmill Creek	Marquette
A-52-044	Goose Lake	Marquette
A-52-046	Forestville	Marquette
A-52-047	McClure Storage Basin	Marquette
A-52-048	Schweitzer Creek Flowage	Marquette
A-52-049	Boston Lake	Marquette
A-52-051	Perch Lake	Marquette
A-52-055	Van Riper State Park	Marquette
A-52-059	Michigamme Dam	Marquette

Michigan State Boating Access Sites
(Developed Sites Only)

<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-52-060	Teal Lake	Marquette
A-52-061	Greenwood Reservoir	Marquette
A-52-066	M-28 Bridge	Marquette
A-53-001	Gun Lake	Mason
A-53-002	Upper	Mason
A-53-004	Ford Lake	Mason
A-53-005	Walhalla Road Bridge	Mason
A-53-006	Pere Marquette	Mason
A-53-007	Black River	Mason
A-53-008	Pere Marquette River - West	Mason
A-53-012	Hackert Lake	Mason
A-53-013	Tallman Lake	Mason
A-53-014	Landon Bridge	Mason
A-53-015	Pliness Lake	Mason
A-53-016	St. Mary's Lake	Mason
A-53-017	US 31	Mason
A-53-018	Ludington State Park	Mason
A-53-020	Pere Marquette - Custer	Mason
A-53-021	Pere Marquette - Fork	Mason
A-53-022	Pere Marquette - section line	Mason
A-53-023	Pere Marquette - USFS 5167	Mason
A-54-001	Lake Mecosta	Mecosta
A-54-002	Rogers Pond	Mecosta
A-54-003	Chippewa Lake	Mecosta
A-54-005	Pretty Lake	Mecosta
A-54-006	Townline Lake	Mecosta
A-54-007	Clear Lake	Mecosta
A-54-008	Hillview Lake	Mecosta
A-54-009	Brockway Lake	Mecosta
A-54-010	River Bend Bluffs	Mecosta
A-54-011	Jehnsen Lake	Mecosta
A-54-012	Former Rustord Pond	Mecosta
A-54-013	Muskegon River	Mecosta
A-54-014	Lower Evans Lake	Mecosta
A-54-015	Big Evans Lake	Mecosta
A-54-016	Upper Evans Lake	Mecosta
A-54-017	Winchester Dam	Mecosta
A-54-018	Burgess Lake	Mecosta
A-54-019	Altona - Little Muskegon River	Mecosta
A-54-025	131 Bridge	Mecosta

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-55-001	Cedar River Mouth	Menominee
A-55-002	Koss Landing	Menominee
A-55-003	Faithorn	Menominee
A-55-004	Lake Ann	Menominee
A-55-005	Lake Mary	Menominee
A-55-006	Linnbeck Lake	Menominee
A-55-007	Sturgeon Landing	Menominee
A-55-008	Railroad Dock	Menominee
A-55-012	Gerald Welling Memorial	Menominee
A-56-001	Big Salt River	Midland
A-56-002	Sanford Lake	Midland
A-57-001	Lucas Road	Missaukee
A-57-002	Dyer Lake	Missaukee
A-57-003	Lake Sapphire	Missaukee
A-57-004	Clam River	Missaukee
A-58-001	Hoffman Memorial	Monroe
A-58-004	Otter Creek Mouth	Monroe
A-58-006	Halfway Creek	Monroe
A-58-007	Dixie Highway	Monroe
A-58-008	Sterling State Park	Monroe
A-58-009	Swan Creek	Monroe
A-58-010	Bolles Harbor	Monroe
A-59-001	Lake Montcalm	Montcalm
A-59-003	Horseshoe Lake	Montcalm
A-59-004	Nevins Lake	Montcalm
A-59-005	Dickerson Lake	Montcalm
A-59-006	Clifford Lake	Montcalm
A-59-007	Derby Lake	Montcalm
A-59-008	Swan Lake (Mud)	Montcalm
A-59-009	Little Whitefish Lake	Montcalm
A-59-010	Muskellunge Lake	Montcalm
A-59-011	Half Moon Lake	Montcalm
A-59-012	Tamarack Lake	Montcalm
A-59-013	Rainbow Lake	Montcalm
A-59-014	Cowden Lake	Montcalm
A-59-015	Loon Lake	Montcalm
A-59-016	Hemmingway Lake	Montcalm
A-59-017	Crystal Lake-North	Montcalm
A-59-030	Duck Lake	Montcalm
A-59-031	Fifth Lake	Montcalm

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-60-001	Rush Lake Flooding	Montmorency
A-60-002	Rush Lake Dam	Montmorency
A-60-003	McCormick Lake	Montmorency
A-60-004	Grass Lake	Montmorency
A-60-008	Crooked Creek Pond	Montmorency
A-60-009	East Twin Lake	Montmorency
A-60-010	Avalon Lake	Montmorency
A-60-012	Bourne Lake	Montmorency
A-60-013	Gaylanta Lake	Montmorency
A-60-014	Sage Lake Flooding	Montmorency
A-60-015	Long Lake	Montmorency
A-60-016	De Cheau Lake	Montmorency
A-60-017	Crooked Lake	Montmorency
A-60-018	Clear Lake State Park	Montmorency
A-60-022	Clear Lake State Park	Montmorency
A-61-003	Muskegon State Park	Muskegon
A-61-004	Snug Harbor Muskegon State Park	Muskegon
A-61-005	White Lake Channel	Muskegon
A-61-009	Duck Lake State Park	Muskegon
A-62-001	Brooks Lake	Newaygo
A-62-002	Diamond Lake	Newaygo
A-62-003	Pickrel Lake	Newaygo
A-62-004	Newaygo	Newaygo
A-62-005	Hess Lake	Newaygo
A-62-006	Ransom Lake	Newaygo
A-62-007	Bills Lake	Newaygo
A-62-008	Bitely Lake	Newaygo
A-62-009	Woodland Lake	Newaygo
A-62-010	Englewright Lake	Newaygo
A-62-012	Robinson Lake	Newaygo
A-62-013	High Rollway - Thornapple	Newaygo
A-62-014	Anderson's Flats	Newaygo
A-62-015	Pine Street	Newaygo
A-62-016	Marl Pit Creek	Newaygo
A-62-017	Maple Island	Newaygo
A-62-018	Henning Park	Newaygo
A-62-020	Newaygo State Park	Newaygo
A-62-021	Steamboat Landing	Newaygo
A-62-022	Sand Lake	Newaygo
A-63-001	Orchard Lake	Oakland

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-63-002	Union Lake	Oakland
A-63-003	Lake Oakland	Oakland
A-63-004	Tackles Drive	Oakland
A-63-005	Wolverine Lake	Oakland
A-63-006	White Lake	Oakland
A-63-007	Lake Orion	Oakland
A-63-008	Big Lake	Oakland
A-63-009	Long Lake	Oakland
A-63-010	Davisburg Trout Pond	Oakland
A-63-011	Crescent Lake	Oakland
A-63-012	Loon Lake	Oakland
A-63-013	Squaw Lake	Oakland
A-63-014	Lakeville Lake	Oakland
A-63-015	Shoe Lake	Oakland
A-63-016	Maceday Lake	Oakland
A-63-017	Cedar Island Lake	Oakland
A-63-018	Tipsico Lake	Oakland
A-63-019	Fenton Trout Pond	Oakland
A-63-020	Dodge Bros. State Park #4	Oakland
A-63-021	Pontiac Lake	Oakland
A-63-022	Alderman Lake	Oakland
A-63-023	Moore Lake	Oakland
A-63-024	Lower Pettibone Lake	Oakland
A-63-025	Teeple Lake	Oakland
A-63-027	Proud Lake	Oakland
A-63-028	Heron Lake	Oakland
A-63-029	Crotched Lake	Oakland
A-63-030	Crystal Lake	Oakland
A-63-031	Holdredge Lake	Oakland
A-63-032	Wildwood-Valley Lakes	Oakland
A-63-033	Graham Lakes - South	Oakland
A-63-034	Trout Lake	Oakland
A-63-035	Big Seven Lake	Oakland
A-63-036	Dickinson Lake	Oakland
A-63-037	Upper Straits Lake	Oakland
A-63-038	Chamberlain Lake	Oakland
A-63-039	Prince Lake	Oakland
A-63-040	Hart Lake	Oakland
A-64-001	Crystal Lake	Oceana
A-64-002	McLaren Lake	Oceana

Michigan State Boating Access Sites
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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-64-005	North Branch	Oceana
A-64-007	Twin Bridge	Oceana
A-64-008	Silver Lake State Park	Oceana
A-65-001	Rifle River - South	Ogemaw
A-65-002	Rifle River - North	Ogemaw
A-65-003	Clear Lake	Ogemaw
A-65-004	Klacking Creek	Ogemaw
A-65-005	Hardwood Lake	Ogemaw
A-65-006	Bougner Lake	Ogemaw
A-65-007	Sage Lake	Ogemaw
A-65-008	Horseshoe Lake	Ogemaw
A-65-009	George Lake	Ogemaw
A-65-010	Big & Little Williams	Ogemaw
A-65-012	Bass Lake	Ogemaw
A-65-013	Bush Lake	Ogemaw
A-65-014	Tee Lake	Ogemaw
A-65-015	Vaughn Creek	Ogemaw
A-65-016	Lake George	Ogemaw
A-65-017	Peach Lake	Ogemaw
A-65-018	Au Sable Lake	Ogemaw
A-65-019	Kenneth Road	Ogemaw
A-65-020	Rifle Lake	Ogemaw
A-65-021	Little Long Lake	Ogemaw
A-65-023	Grousehaven Lake	Ogemaw
A-65-024	Devoe Lake	Ogemaw
A-65-025	Grebe Lake	Ogemaw
A-65-026	Lodge Lake	Ogemaw
A-65-027	The Ranch	Ogemaw
A-65-028	Henderson Lake	Ogemaw
A-66-001	Bergland Dock	Ontonagon
A-66-002	County Line Lake	Ontonagon
A-66-003	Ewen	Ontonagon
A-66-005	Lake Gogebic	Ontonagon
A-66-006	Porcupine Mountains S.P.	Ontonagon
A-66-007	Misery River Mouth	Ontonagon
A-67-001	North Branch Pine River	Osceola
A-67-003	Hicks Lake	Osceola
A-67-004	East Branch Pine River	Osceola
A-67-005	Graver Road	Osceola
A-67-006	McCoy Lake	Osceola

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-67-007	Whetstone Creek	Osceola
A-67-009	Wells Lake	Osceola
A-67-010	Middle Branch River	Osceola
A-67-011	Big Lake	Osceola
A-67-012	Todd Lake	Osceola
A-67-013	Pine River	Osceola
A-67-014	Diamond Lake	Osceola
A-67-015	Muskegon River	Osceola
A-67-016	Marion Pond	Osceola
A-67-018	Muskegon River M 115	Osceola
A-67-020	Crawford Park	Osceola
A-68-001	Tea Lake	Oscoda
A-68-002	Big Creek	Oscoda
A-68-005	Whirlpool	Oscoda
A-68-006	Camp Ten Bridge	Oscoda
A-68-008	Comins Flats	Oscoda
A-68-010	M33 Roadside Park	Oscoda
A-69-001	Dixon Lake	Otsego
A-69-002	Sturgeon River	Otsego
A-69-003	Big Lake	Otsego
A-69-005	Bradford Lake	Otsego
A-69-006	Lake Manuka	Otsego
A-69-007	Heart Lake	Otsego
A-69-008	Opal Lake	Otsego
A-69-010	Big Bass Lake	Otsego
A-69-011	Pigeon River	Otsego
A-69-012	Lake Twenty-Seven	Otsego
A-69-013	Emerald Lake	Otsego
A-69-014	West Twin Lake	Otsego
A-69-015	Five Lakes - South	Otsego
A-69-022	Otsego Lake State Park	Otsego
A-70-001	Lake Macatawa	Ottawa
A-70-002	Petty's Bayou	Ottawa
A-70-003	Lloyd's Bayou	Ottawa
A-70-004	Robinson	Ottawa
A-70-005	Holland State Park	Ottawa
A-70-006	Bruce's Bayou - West	Ottawa
A-70-008	Indian Channel	Ottawa
A-70-011	Pigeon Lake	Ottawa
A-70-012	Bruce's Bayou - East	Ottawa

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-70-101	Grand Haven Breakwater	Ottawa
A-71-001	Lost Lake	Presque Isle
A-71-002	Long Lake	Presque Isle
A-71-003	Lake Emma	Presque Isle
A-71-004	Lake Nettie	Presque Isle
A-71-005	Quinn Creek	Presque Isle
A-71-006	US-23	Presque Isle
A-71-008	Hammond Point	Presque Isle
A-71-009	Lake Augusta	Presque Isle
A-71-010	Townhall	Presque Isle
A-71-011	Lake Ferdelman	Presque Isle
A-71-012	Bear Den Lake	Presque Isle
A-71-013	Lake May	Presque Isle
A-71-016	Onaway State Park	Presque Isle
A-71-018	Hammond Bay	Presque Isle
A-71-019	Presque Isle	Presque Isle
A-71-020	Lake Esau	Presque Isle
A-71-101	Ocqueoc River Mouth	Presque Isle
A-72-001	Houghton Lake	Roscommon
A-72-002	Lake St. Helen	Roscommon
A-72-003	Houghton Lake West	Roscommon
A-72-004	Houghton Lake East	Roscommon
A-72-005	Higgins Lake	Roscommon
A-72-006	Marl Lake	Roscommon
A-72-012	South Higgins Lake S. P.	Roscommon
A-72-014	Lake St. Helen	Roscommon
A-73-004	Flint River	Saginaw
A-73-006	M-13 Bridge	Saginaw
A-74-001	North Channel	Saint Clair
A-74-002	Fair Haven	Saint Clair
A-74-003	Deckers Landing	Saint Clair
A-74-004	Belle River	Saint Clair
A-74-006	Algonac State Park	Saint Clair
A-74-011	Ames	Saint Clair
A-74-012	Snooks	Saint Clair
A-74-018	Marine City	Saint Clair
A-75-001	Pleasant Lake	Saint Joseph
A-75-002	Klinger Lake	Saint Joseph
A-75-003	Fisher's Lake	Saint Joseph
A-75-004	Clear Lake	Saint Joseph

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-75-005	Stump Bay	Saint Joseph
A-75-006	Fish Lake	Saint Joseph
A-75-007	Thompson Lake	Saint Joseph
A-75-008	Palmer Lake	Saint Joseph
A-75-009	Mud Lake	Saint Joseph
A-75-010	Long Lake	Saint Joseph
A-75-011	Noah Lake	Saint Joseph
A-75-012	Lee Lake	Saint Joseph
A-75-013	Sturgeon Lake	Saint Joseph
A-75-014	Mendon	Saint Joseph
A-75-015	Omena Lake	Saint Joseph
A-75-016	Prairie River Lake	Saint Joseph
A-75-017	Portage Lake	Saint Joseph
A-76-004	Lexington Harbor	Sanilac
A-76-006	Port Sanilac	Sanilac
A-77-002	Wagner Dam	Schoolcraft
A-77-003	Kennedy Lake	Schoolcraft
A-77-005	Ten Curves	Schoolcraft
A-77-006	Dodge Lake	Schoolcraft
A-77-007	Dutch Fred Lake	Schoolcraft
A-77-009	McDonald Lake	Schoolcraft
A-77-010	Snyder Lake	Schoolcraft
A-77-011	Ashford Lake	Schoolcraft
A-77-012	Clear Creek Pond	Schoolcraft
A-77-013	Thompson Creek	Schoolcraft
A-77-017	Seul Choix Pte	Schoolcraft
A-77-025	Indian Lake State Park	Schoolcraft
A-77-027	Germfask	Schoolcraft
A-77-028	Palms Book State Park	Schoolcraft
A-77-029	Indian Lake State Park	Schoolcraft
A-79-002	Quanicassee River	Tuscola
A-80-001	Clear Lake	Van Buren
A-80-002	Round Lake	Van Buren
A-80-003	Gravel Lake	Van Buren
A-80-004	Saddle Lake	Van Buren
A-80-005	Cedar Lake	Van Buren
A-80-006	Brandywine Lake	Van Buren
A-80-007	Van Auken Lake	Van Buren
A-80-008	Three Mile Lake	Van Buren
A-80-009	Huzzy Lake	Van Buren

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-80-010	Lake Cora	Van Buren
A-80-011	Wolf Lake	Van Buren
A-80-012	Lake Eleven	Van Buren
A-80-013	Fish Lake	Van Buren
A-80-014	Scott Lake	Van Buren
A-80-015	Rush Lake	Van Buren
A-80-016	Hall Lake	Van Buren
A-80-017	Lake of The Woods	Van Buren
A-80-018	Shafer Lake	Van Buren
A-80-019	Black River	Van Buren
A-80-020	Eagle Lake	Van Buren
A-80-021	Reynolds Lake	Van Buren
A-80-022	School Section Lake	Van Buren
A-80-023	Lake Fourteen	Van Buren
A-80-024	Three-Legged Lake	Van Buren
A-80-025	Jeptha Lake	Van Buren
A-80-026	Bankson Lake	Van Buren
A-81-001	Bruin Lake	Washtenaw
A-81-002	Half-Moon Lake	Washtenaw
A-81-003	Sugarloaf Lake	Washtenaw
A-81-005	Joslin Lake	Washtenaw
A-81-006	North Lake	Washtenaw
A-81-007	Walsh Lake	Washtenaw
A-81-009	South Lake	Washtenaw
A-81-010	Crooked Lake	Washtenaw
A-81-011	Winnewanna Impoundment	Washtenaw
A-81-012	Pickrel Lake	Washtenaw
A-81-014	Mill Lake	Washtenaw
A-81-015	Cedar Lake	Washtenaw
A-81-016	Green Lake	Washtenaw
A-81-017	Doyle Lake	Washtenaw
A-81-020	Portage Lake	Washtenaw
A-81-021	Mud Lake	Washtenaw
A-81-022	Sullivan Lake	Washtenaw
A-81-023	Crooked Lake	Washtenaw
A-82-003	Belleville Lake - East	Wayne
A-82-009	Belleville Lake - West	Wayne
A-83-001	Mitchell West	Wexford
A-83-002	Berry Lake	Wexford
A-83-003	Harvey Bridge	Wexford

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<u>Site ID</u>	<u>Site Name</u>	<u>County</u>
A-83-004	Baxter Bridge	Wexford
A-83-006	Fletcher Creek	Wexford
A-83-009	W. M. Mitchell State Park	Wexford
A-83-014	W. M. Mitchell State Park	Wexford
A-83-015	Pleasant Lake	Wexford